

Motivational Basis of Organizational Citizenship Behaviour

Dissertation

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Zurich,

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“Per aspera ad astra”

Through darkness to the stars – this saying used to cheer me up when I felt lost in Byzantine scholarly papers or rocket-science statistical calculations. Indeed, the process of writing this thesis required patience, austerity and a permanent battle against frustration and distraction. But it also gave me much delight, many new insights, the possibility to embark on a thrilling intellectual journey, and the chance extensively to explore unknown territory. All in all, it allowed me to gain impressive emotional and intellectual experiences I certainly would not wish to miss. I am not certain, but I certainly hope, that I grew a little wiser through writing this paper, and I am glad and thankful that I had the opportunity to write a PhD thesis.

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Summary

In modern work organizations, there is a growing importance of behaviours that go beyond formal and informal role prescriptions, that are discretionary and that promote the efficient and effective functioning of the organization (usually termed Organizational Citizenship Behaviour or OCB). In order to better explain and manage these behaviours, additional research related to the motivational basis of OCB is needed. Critical investigation into the state of the art leads to three conclusions.

First, the development of the OCB construct is influenced primarily by three strands of literature: Organ's original conceptualization, which is rooted in the human relation school, research by Motowidlo and Van Scotter on contextual performance originating in scholarly work on assessment and selection, and Van Dyne and Graham's reconceptualization, which is heavily influenced by political philosophy. Second, since empirical evidence shows that OCB is motivated both internally and externally, we propose a working definition which is on the one hand influenced by Organ, but which – on the other hand – drops the requirement that OCB is not rewarded.

Third, both theoretical and empirical work on the antecedents and consequences of OCB reveal that the motivational mechanisms underlying these behaviours are under-researched. Analysing those studies which deal explicitly with motivational mechanisms and OCB yields four distinctive theoretical approaches: (1) studies anchoring their explanations in social exchange theory; (2) empirical work showing that supervisors take into account OCB when evaluating their employees and that employees may engage in OCB because they want to impress their supervisors; (3) research using a functional motives approach, which postulates and empirically tests different motives to perform OCB, and (4), studies referring to social dilemmas as an alternative way to explain the occurrence (or better: the absence) of OCB.

We propose a motivational framework consisting of two internal (fun based and obligation based) and three external (career based, avoidance based and profiling based) types of motivation. This framework builds on functional motives theory (i.e. reasons to act play an important role in explaining behaviour) and self-determination theory (i.e. people have a basic need for autonomy and favour actions with an internal locus of control) and allows systemizing and integrating insights from social exchange, impression management and social dilemma theories. Based on this motivational framework, we propose hypotheses that specify the influence of the five motive types on OCB and how those motives interact with situational antecedents.

In order to test these hypotheses, we develop a research strategy which involves a five-step approach to questionnaire design and a two-stage process of structural equation modelling. Analysing data from a large pharmaceutical production site, we find partially support for the hypotheses. Internal motives (i.e. fun based and obligation based motivation) are more relevant than external motives, OCBI (OCB directed towards the individual) and OCBO (OCB directed towards the organization) have different motivational bases and internal motives mediate the relationship between supervisor's interpersonal fairness and OCB (i.e. high interpersonal fairness leads to high level of internal motivation which in turn fosters OCB). Finally, we discuss implications for both theory and practice and suggest directions for further research.

1. Introduction

1.1 Organizational Citizenship Behaviour or, going the extra mile

Imagine you are a business consultant and you realize that your colleague has fallen behind schedule with an important project. Although a deadline is approaching for your own project and the success of your colleague's project has no influence on that of your own, you decide to work even longer and to lend your colleague a helping hand. Or consider a worker in a chemical production site. She has to follow strict hygienic instructions which involve frequent quality control checks. Even though these quality control checks are quite tedious and nobody could attribute a lack of control checks to her, she always performs these checks in a diligent manner.

Both are examples of behaviours widely observed in organisations, and both these behaviours are typical forms of what is most commonly called “Organizational Citizenship Behaviour” (OCB). What exactly is OCB about? A convenient way to elaborate the meaning of OCB is to stick to the original definition provided by Dennis Organ, the scholar who first introduced the term OCB to academic discussion. According to Organ, OCB is “behaviour that is discretionary, usually not rewarded by formal incentives and in the aggregate promotes the effective functioning of organizations” (D.W. Organ, 1988, p.4). This definition mentions three distinctive elements which have been central to research on OCB in the last twenty-five years. First, OCB is supposed to be discretionary behaviour, i.e. performing OCB cannot be contracted. Second, employees who exhibit OCB are not usually rewarded by the organization. And finally, OCB is behaviour which – at least in the long run and aggregated over many people – contributes to the effectiveness of organizations¹. To substantiate this definition, a lot of research has tried to provide concrete sub-categories of the OCB general construct. In most cases this research refers to a categorization proposed by Organ. In Organ's view, five behavioural categories satisfy the definition of OCB: helping behaviour, conscientiousness (i.e. adherence to rules even if nobody is watching), sportsmanship (i.e. willingness to tolerate inconveniences at work), loyalty (i.e. defending the organization in the event of criticism) and civic virtue (i.e. expressing constructive suggestions) (D.W. Organ, 1988).

¹ As we will see later on, all of these characteristics have been disputed. Arguments both in favour and against this definition will be discussed in chapter 2.1. For the moment, we will stick to this definition.

While behaviours which are now labelled OCB may have existed ever since the rise of modern work organizations, it is not evident a priori why they exist and what their importance is. Hence, the following section introduces four categories of reasons why OCB plays an eminent role in organizations. Since many of these reasons have recently become more relevant, it follows that OCB is also becoming increasingly important.

The *first category* is concerned with the relation of OCB to key characteristics of contemporary organizations:

a) In modern work organizations, many tasks are highly interdependent. In these circumstances it becomes very difficult to disentangle each party's contributions and to specify in advance which actions might be required. Performing actions which are not prescribed (because they can not be specified ex ante) is a central element of OCB. Hence, additional insights into the nature and antecedents of OCB may reveal the kind of information necessary for an efficient and effective management of complex interdependencies.

b) The use of work groups and teams has become prevalent in many contemporary organizations. While teams have a lot of advantages they also come with weighty drawbacks. The difficulty of monitoring and enforcing cooperative behaviour can result in free-riding behaviour. Yet, employees engaging voluntarily in collaborative behaviour are much less likely to engage in free-riding. OCB as a form of collaborative behaviour may therefore facilitate team work. Examples of team-enhancing OCB behaviours are attending to informal group norms even if nobody is watching (i.e. conscientiousness) or making constructive proposals at team meetings (i.e. civic virtue).

c) In developed economies, knowledge-intensive industries and services are becoming more and more important. One condition needed for these organizations to thrive is a willingness on the part of their employees to share knowledge. Only by transferring both implicit and explicit knowledge are these organizations able to keep their knowledge base and to create new knowledge. The problem is that the sharing of information can hardly be enforced. Rather, knowledge-sharing often implies voluntary acts of helping behaviour. Because helping behaviour is a central facet of OCB, the study of OCB can therefore contribute to solving the problem of knowledge-sharing in organizations.

The *second category* of reasons why OCB is important emphasizes the dynamics of competitive markets:

d) To create sustainable rents, many firms face a constant pressure to innovate. Given this increased importance of innovation, the question of how to foster innovative behaviour becomes crucial. Since both product and process innovations are in many cases triggered by ideas put forward by employees, it can be decisive to motivate people to actually make their ideas public. Proactive OCB, usually termed civic virtue or voice behaviour, refers exactly to this kind of non-enforceable behaviour. Hence, fostering civic virtue may well result in organizations becoming more innovative.

e) Today markets are changing rapidly and competitive pressures are mounting. In this highly volatile environment, it is not possible to specify all desirable behaviours in advance (D.W. Organ, 1997). Rather, organizations have to rely on their employees' willingness to participate beyond formal requirements. Yet, it is exactly this willingness to go the extra mile that is the essence of OCB. In order to cope with ever-changing market conditions, organizations are increasingly dependent on employees who frequently perform OCB.

f) Many organizations face restructuring and change processes in quick succession. While the success of these change processes depends on many different factors, employee behaviours play a significant role. Some of these behaviours are similar to behaviours associated with OCB. For example sportsmanship, i.e. the propensity to tolerate temporary inconveniences at work, or helping behaviour can substantially reduce the frictions caused by change processes.

The *third category* of reasons stresses claims of important stakeholders:

g) In many saturated markets, customers are becoming more demanding and less loyal. As a reaction, many firms are increasingly customer orientated. Concepts like process organization, total quality management or profit centers all entail a clear focus on customers' demands. As a consequence, even back-office functions increasingly have to deal directly with customers. Customer-oriented behaviour, however, encompasses many non-prescribed elements which bear a resemblance to OCB. For example, giving extra advice to a customer can be considered a form of helping behaviour that goes well beyond formal job descriptions.

In OCB research, there has even been a recent call to model customer-oriented OCB as a subcategory of the general OCB construct².

h) As demands from investors and shareholders to deliver returns become stronger, the contribution of processes, structures and people to a company's success is increasingly scrutinized. Employees' behaviours are supposed to be aligned with strategic goals and – as a consequence – contribute to value creation. Since Organ has introduced the term OCB into the academic discourse, one characteristic feature of the construct has been its contribution to organizational effectiveness and success. The proposed explanations for the positive impact on firm performance are manifold and range from endorsing cooperation to the creation of social capital, which in turn helps to achieve sustainable competitive advantages (Bolino, Turnley, & Bloodgood, 2002). The empirical evidence gathered so far is indeed supportive of this claim³. The issues surrounding the consequences of OCB are of great importance to practice and theory alike. For practice, the notion of contributing to organizational success is an important reason for the high attention OCB has received from practitioners. Indeed, the claim that it enhances firm performance is an important reason to invest in incentive structures aimed at fostering OCB. From a theoretical perspective, the definition of the construct and – as will be shown in greater detail later on – the adequate modelling of the motivational processes underlying OCB also depend largely on OCB having a positive impact on organizational effectiveness.

The forth category deals with enlarging the performance domain:

i) Defining job performance has always been a hotly disputed issue. However, there has recently been a tendency to enlarge the performance domain to include extra-role behaviour (Motowidlo & Van Scotter, 1994). These extra-role behaviours differ from in-role job performance in that they are in many cases difficult to observe, hardly measurable and cannot be enforced by courts. Yet, these features are also defining characteristics of OCB. Hence, practical considerations about job performance like performance appraisals, competence development and promotion are increasingly intertwined with OCB.

² For a more detailed account on the different facets of the OCB construct, see chapter 2.1.

³ The empirical evidence and the proposed theoretical explanations are discussed comprehensively in chapter 2.3.

k) Finally, the fact that OCB is a behaviour which is generalizable across jobs also adds to the relevance of the concept (D.W. Organ, 1988). While tasks which belong to the technical core of a job are often highly idiosyncratic, behaviours relating to OCB can be found in various organizational contexts. For example, the mastery of a credit risk model may be highly specific to a peculiar bank, but volunteering to instruct new employees on the use of the model is a behaviour which can be transferred to other settings. Therefore, methods of influencing OCB may have a wide range of applications in different organizational contexts.

Considering the relevance of OCB in today's business environment, it comes as no surprise that OCB has received a great deal of attention in both theory and practice. In theory, the first contributions came from the field of organizational psychology. At first driven by a concern to enlarge the performance domain to be able to better explain the link between satisfaction and employee performance, the focus soon shifted towards an investigation into the antecedents and consequences of OCB. Nowadays, OCB is a central concept not only in organizational psychology but also in organizational behaviour and human resource management. Recently, there have been various attempts to transfer insights from OCB research to other areas of management studies. Among those are studies juxtaposing OCB and traditional organizational theories like transaction cost economics (D. W. Organ, Podsakoff, & Mackenzie, 2006), papers linking OCB to the creation of resourced based strategies (Bolino et al., 2002) and work trying to integrate OCB into marketing research (Mackenzie, Podsakoff, & Fetter, 1991).

In practice, people are most interested in suitable ways of influencing OCB. Empirical research on the antecedents of OCB hints at a variety of useful instruments. From leadership behaviour, work design, and organizational structures to personnel selection, many factors have been shown to influence OCB in a positive way. Nowadays, readings aimed at practitioners on topics such as employee selection, performance management, knowledge management, and change management refer to OCB on a regular basis.

1.2 A tale of good soldiers and rational egoists

In the past twenty-five years a great deal of research has been conducted in the area of OCB. Starting with empirical work on the relationship between satisfaction and OCB, most research has investigated relations between attitudes (e.g. satisfaction, fairness), dispositions (e.g. conscientiousness) and OCB. This kind of research reveals a lot about the interplay of contextual factors, dispositions and OCB. However, there is lack of research that explicitly theorizes about and empirically tests the role of motives and underlying motivational processes. For example, many studies show a positive relationship between perceived fairness and OCB. Yet, motivational mechanisms explaining this finding are hardly ever considered. This gap in the literature has been noticed by leading exponents in the field (D. W. Organ et al., 2006). The request for additional research in the motivational basis of OCB is increasingly followed, but studies addressing this topic are still a small minority.

Besides being a neglected area, research dealing with the motivational basis of OCB is also quite divergent and confusing. The sources of this foggyiness are at least threefold.

First, it is often not clear whether a specific kind of motivation is an integral part of the definition of OCB. For example, in his earlier work, Organ tended to think of OCB as being internally⁴ motivated (Smith, Organ, & Near, 1983)⁵. Others maintain that OCB as a specific form of work behaviour in organizations should be strictly distinguished from its underlying motivational forces (Bolino, 1999). This question has both theoretical and empirical ramifications. From a theoretical point of view, it lies at the heart of the definition of OCB and determines the way OCB should be conceptualized. On a practical plane, the question has consequences for the adequate steering of OCB. If OCB is always internally motivated (because internal motivation is an integral part of the definition of OCB), the ways to foster OCB are limited (e.g. selecting employees who have an internal propensity to perform OCB). If, however, motivation is not a part of OCB's definition, it is possible that different kinds of motives jointly influence OCB and that a wider range of incentives can influence OCB.

Second, researchers with divergent theoretical backgrounds and different research goals have made statements about the motivational basis of OCB. One prominent strain of research is concerned with the influence of dispositional traits on OCB (Borman, Penner, Allen, &

⁴ People are internally motivated if their actions have a (perceived) internal locus of control.

⁵ Because Organ is the "father" of OCB, his views had great influence on subsequent researchers. However, a careful reading of Organ reveals that he has never claimed internal motivation to have an axiomatic status. The facts that OCB is often not rewarded by formal incentive systems and that OCB in many instances cannot be observed lead him to postulate that OCB is in most cases internally motivated.

Motowidlo, 2001). An important finding is that traits such as prosocial orientation or conscientiousness are positively related to OCB.

A different view stems from research focusing on the impact of attitudes⁶ on OCB. This kind of research has so far produced the most comprehensive empirical evidence. According to meta-analyses, attitudes can explain a substantive portion of variance in OCB (P. M. Podsakoff, MacKenzie, Paine, & Bachrach, 2000). However, research on attitudes and OCB is often empirically driven and lacks a clear theoretical foundation. Those studies that explicitly deal with theories usually refer to Social Exchange Theory. In this interpretation, employees reciprocate good treatment on the part of the organization by performing OCB.

To conclude, we find in contemporary OCB research two camps – those emphasizing the relevance of attitudes and those referring to the importance of personal dispositions - each claiming to explain why people engage in OCB. Besides these differences, another complicating factor exists. Neither the proponents of personal traits nor the supporters of attitudes make reference to an established theory of human motivation. Both use “motivation” in quite a general way, interpreting positive relations between antecedents and OB as “motivational forces”. As a result, the black box representing the exact motivational mechanisms linking antecedents and outcome remains closed.

Third, recent research has proposed approaches different to the traditional “disposition or attributes” paradigm. This trend started with work carried out by Bolino stating that impression management can be a motive for performing OCB (Bolino, 1999). For the first time, this research provided sound theoretical and empirical evidence that OCB is not only internally but also externally motivated⁷. Subsequent research based on functional motives approaches has confirmed the relevance of external motives (Rioux & Penner, 2001). Most recently, the debate took a new turn when Daniels et al. put forth an interpretation of OCB as a social dilemma (Joireman, Kamdar, Daniels, & Duell, 2006). Instead of interpreting OCB in Organ’s sense as “good soldiers”, who are internally motivated to go the extra mile, Joireman et al. picture OCB as a result of rationally calculating individuals who are interested solely in maximizing their narrow, subjective utility.

⁶ Attitudes are latent constructs that represent an employee’s affective and cognitive evaluation of a part of the organizational context (e.g. satisfaction with pay is both an affective and cognitive evaluation of an incentive provided by the organization). Unlike personality traits, which are stable patterns of behaviour, thought and emotion, attitudes can change as a function of experience.

⁷ Or to put it differently: Since many supervisors value OCB, employees may perform OCB in order to get promoted or receive higher pay.

1.3 Aim and scope of the study

In this thesis, OCB is defined as a specific category of workplace-related behaviour. This behaviour is supposed to have a positive impact on organizational outcomes, is often not formally rewarded, and is characterized by a certain degree of discretion, i.e. employees can choose at which level they perform OCB. However, by simply observing OCB, we cannot arrive at any conclusion regarding the motivational forces underlying this behaviour⁸. Considering both the paucity of research in this area and the conflicting results this research has produced (cf. chapter 1.2), it seems worthwhile shedding more light on the motivational forces underlying OCB. Hence, the research question in its most general form can be stated as following:

What are the motivational underpinnings of OCB?

To make this rather general question more concrete, we have to clarify several points. Firstly, answering the general research question involves both theoretical and empirical considerations. Theory is necessary to explain and understand the motivational mechanism underlying OCB. Gathering empirical evidence is crucial in validating proposed theoretical explanations with real word samples⁹. Secondly, it is not the goal to plainly refute the existing research on the motivational basis of OCB. Rather, this thesis aims to critically assess and expand this body of research. Thirdly, to make a contribution to discussions in the field of organization and management science, the explanations put forth in this thesis have to be related to fundamental theories employed in management research. This involves elaborating similarities and differences to alternative theoretical explanations. Finally, the self-conception of management as a problem oriented science typically includes the claim to provide some guidance for practice. Hence, a comprehensive answer to the research question involves drawing conclusions for managerial practice.

Considering these clarifications, answering the research question consists in dealing with the following three issues:

- 1) To critically assess the existing theoretical explanations and empirical evidence regarding the motivational basis of OCB.
- 2) To develop and empirically test a motivational framework which is on the one hand based on existing research and on the other hand adds new explanations.

⁸ This statement, of course, implies a rejection of the thesis that a specific kind of motivation is an integral part of OCB's definition.

⁹ More on the epistemological and methodological background of this thesis can be found in chapter 3.1.

3) To make suggestions how an enhanced understanding of the motivational basis of OCB can influence managerial decisions.

Having clarified aim and scope of this thesis, two related questions arise. What is the contribution of this research? Why is it important to conduct this kind of research? Both contribution and importance can be shown at three different levels.

1) Theoretical level

This thesis makes a claim that motivation has to be modelled independently from OCB. While this seems intuitively clear, there are still authors who suggest that OCB is per se motivated in a certain way (Van Dyne, Cummings, & J., 1995). Hence, one contribution lies in elaborating the reasons why observable behaviour (OCB) and latent motivation have to be treated separately. Most scholars discuss the motivational basis of OCB by referring to attitudes or personal dispositions (P. M. Podsakoff et al., 2000). This kind of research mainly consists of measuring correlations between those attitudes, personal dispositions, and OCB. However, the researchers do not specify the motivational process linking antecedents (e.g. attitudes) and outcomes (OCB). In contrast to these authors, the present thesis opens the black box of motivation and sheds light on motives and motivational processes underlying OCB. Only by explicitly postulating and subsequently testing both motives and motivational processes we can finally understand what drives OCB. One important element in opening the black box consists in the development of a new motivational framework which integrates and expands existing research. This results – among other things – in a classification of motive types and in explanations how motives and situational factors interact in influencing OCB. Furthermore, this thesis explicitly deals with internal and external motivation and makes propositions regarding the relevance of each motivational type. By integrating both kinds of motivation, the present study transcends most existing research in the area of OCB, which deals either with internal or external motivation.

Another characteristic feature of existing OCB research is the unrelated coexistence of different theoretical explanations. In order to overcome this unsatisfactory state, this work makes references to some of these existing explanations, highlighting similarities and differences. As noted earlier, most research on OCB is deeply rooted in the academic discipline of organizational behaviour. Hence, considerations concerning for instance behavioural economics and other organizational theories are almost nonexistent. While it is not possible to discuss in great detail all the conclusions resulting from juxtaposing traditional

organizational behaviour based OCB research and results from other social sciences, this thesis tries at least to hint at some potential points of mutual interference.

Finally, although it is not its primary goal, this work contributes to clarify some fuzzy conceptual issues. Examples include modelling OCB as social dilemmas or sorting out the relationships between OCBI, OCBO and general OCB.

2) Empirical level

Generally speaking, the goal of the empirical part of this thesis is to test the theoretically derived motivational framework in a field setting. While some authors have made theoretical contributions towards a better understanding of the motivational basis of OCB, only very few have conducted empirical research validating their theoretical claims. The variety of empirical analyses performed for this thesis entails a wide range of conclusions. First, they provide insight into different subtypes of internal and external motivation. Furthermore, the results give hints regarding the relative weight of both kinds of motivation. Second, this study is among very few to model and test explicitly the interaction of motives and situational factors. This allows the integration of separate strands of literature and the proposal of models that represent reality in organizations more adequately. Finally, this research sheds additional light on issues concerning the adequate modelling of OCB. In particular, it provides evidence regarding the relationship between OCBI, OCBO and general OCB, a topic which is hotly disputed in the OCB community.

3) Practical level

A topic many practitioners are heavily interested in concerns the possibilities of influencing OCB. How can we design incentive systems to foster OCB? Knowing the motivational processes underlying OCB greatly helps to influence OCB in a systematic way. But why exactly is it important for managers to know about motivational processes? The notion of motives, which are an important part of the proposed motivational framework, provides some answers. Firstly, different motives may lead to differences in how OCB is performed. i.e. intensity and quality of the behaviour may vary. For example, the willingness of employees to exhibit OCB when nobody is watching will depend on the underlying motives. Secondly, different motives lead to different attributions by people who observe this behaviour (Allen & Rush, 1998; Tepper et al., 2004). As a consequence, motives (or more precisely: attributed motives) influence the behavioural reactions of both supervisors and coworkers. Finally,

different motives may result in differences in how incentives work. Incentives that work for internal motives may not be suited for external motives. For example, our empirical analyses reveal that supervisor's interpersonal fairness is more effective in enhancing OCB if employees have internal motivation rather than external motivation.

1.4 Structure of the study

Before exposing the structure of this thesis in a more detailed manner, it is helpful to explain some general considerations regarding the disciplinary approach espoused and the relation between theories of human motivation and those of OCB.

Up to now, scholarly discussion regarding OCB has primarily taken place in the field of organizational behaviour. Hence, the theories employed in OCB research are in most cases rooted in the academic disciplines of social and organizational psychology¹⁰. In order to relate to this discussion, the present thesis predominantly refers to and uses theories from social and organizational psychology. This "bias" towards (social)psychological theories is amplified by focusing on the motivational basis of OCB. Motivation is most prominently discussed in (social)psychology. While other social sciences – such as economics – also deal with aspects of motivation, the most detailed accounts concerning the content and processes of motivation are still found in psychology.

Since this thesis addresses the motivational basis of OCB we have to find a coherent way to combine theories of motivation with those of OCB. One possibility would be to start with motivation and subsequently to integrate the results of OCB research. Or we could start the other way round, i.e. first discuss OCB and then add selected motivational theories later on. The following reasons lead us to follow the second route:

First, the aim of this study is to contribute to research in the realm of OCB. Therefore, it is important to relate to the discussion conducted in the OCB community. Second, reviews of motivational theories in organizational settings reveal a general trend towards studying

¹⁰ The term organizational behaviour is interpreted in various ways. In the context of this thesis, organizational behaviour refers to a specific scientific field which aims to explain the behaviour of individuals and groups in organizational settings. In contrast to economics, a coherent theoretical core does not exist. Rather, the field borrows theories from various academic disciplines, most prominently from social psychology. In this sense, organizational behaviour is institutionalized in business schools and in the scholarly discourse (with some of the most important journals being the *Academy of Management Journal*, the *Journal of Applied Psychology* and *Journal of Organizational Behaviour*).

motivation in the context of specific behaviours or incentive systems (e.g. pay, leadership, OCB) (Ambrose & Kulik, 1999). Hence, in this thesis, theories of motivation are embedded in the description and discussion of results from research on OCB. Finally, references to the motivational basis in OCB research are not limited to established theories of human motivation. Rather, for many authors the attitudes towards structural and personal elements of the environment or dispositional factors are also part of the motivational basis of OCB (P. M. Podsakoff et al., 2000). Therefore, starting with results from OCB research and integrating motivational theories later on enables us to critically discuss this broad view on motivation in OCB research.

This thesis consists of four main chapters: “introduction”, “theory”, “empirics” and finally “concluding remarks”. This structure is depicted in the figure below and described in more detail in the following paragraph.

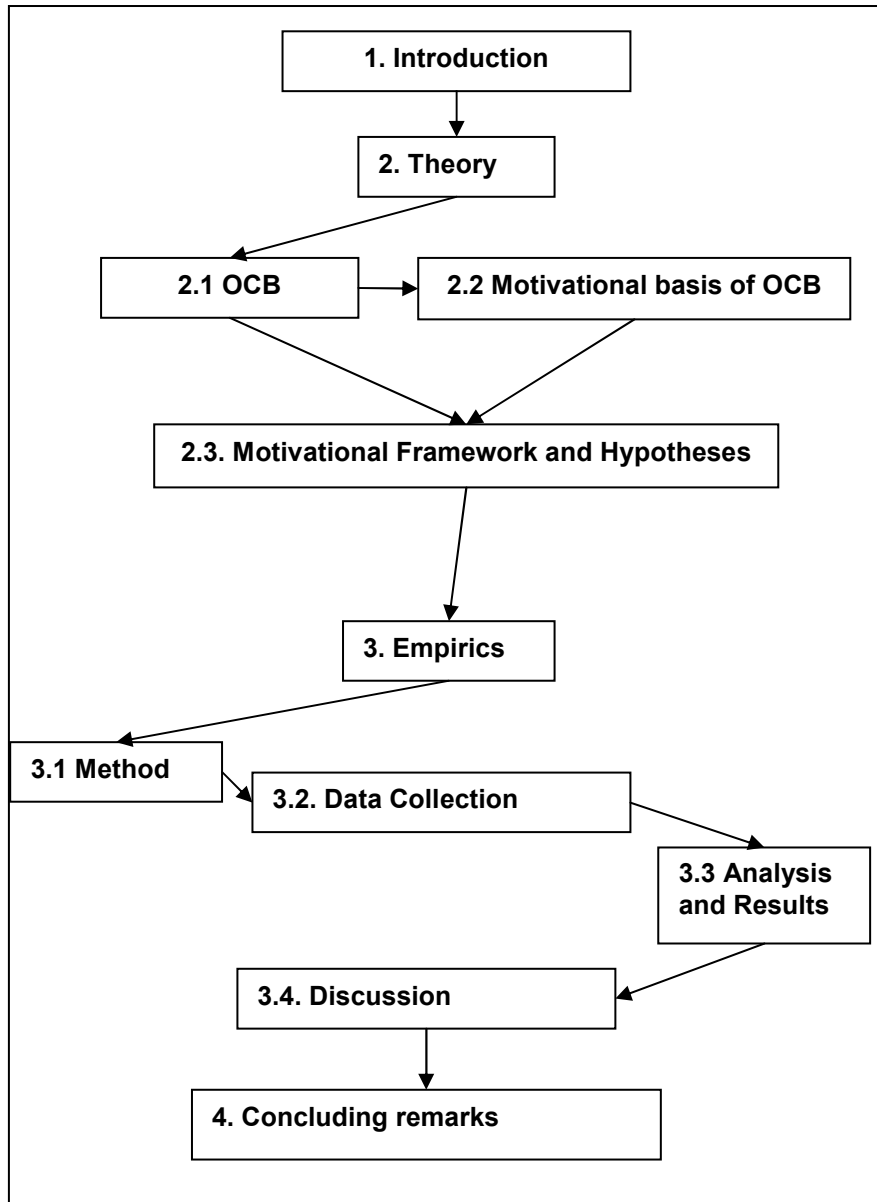


Figure 1: Structure of the thesis

Chapter 1, *Introduction*, highlights the importance of OCB for both theory and practice (chapter 1.1), introduces the motivational basis of OCB as an under-researched and contradictory field (chapter 1.2), specifies and motivates the research question (chapter 1.3) and explains the structure (chapter 1.3).

Chapter 2, *Theory*, aims to provide a synopsis of research relevant to the research question, to elucidate the discrepancies and controversies regarding motivation and OCB, and finally to develop and specify a new approach towards understanding the motivational basis of OCB. In the first part of this chapter, the state of the art regarding the OCB construct, its antecedents (i.e. attitudes, dispositions, motives) and its consequences for organizational effectiveness are discussed (chapter 2.1). Chapter 2 continues with the exposure and discussion of existing theoretical explanations of the motivational basis of OCB. These theories include social exchange, impression management, functional motives and social dilemma theory (chapter 2.2.). Based on this discussion and drawing on self-determination theory, this subchapter further develops a framework proposing a broadened view on motivation and OCB. Chapter 2 concludes with the deployment of a specific set of hypotheses rooted in the proposed motivational framework (chapter 2.3).

Chapter 3, *Empirics*, explains the methodological background, describes the procedure of data collection, tests the hypotheses, and discusses the empirical results. First, the chapter comments on epistemological and statistical issues (chapter 3.1.). It is not the goal to cover epistemology and statistical theories in great depth. Rather, this subchapter addresses methodological problems arising from the empirical analysis of the data. The next step explains how the data were collected (chapter 3.2). This includes remarks on the development of the questionnaire, the pretests and the field survey. The main part of chapter 3 deals with empirically testing the proposed hypotheses (chapter 3.3). Since the analyses employ structural equation modelling techniques, this part presents results for both measurement and structural models. Finally, the chapter closes with the discussion of the results (chapter 3.4).

Chapter 4, *Conclusion and Implications*, integrates results from theoretical and empirical chapters and draws conclusions for both theory and practice. The chapter starts with theoretical implications (chapter 4.1.). In the next step, suggestions for managerial action are proposed (chapter 4.2). The thesis ends with suggestions for further research (chapter 4.3) and a general conclusion (chapter 4.4).

Since chapter two and three have a more complicated structure than the other two chapters, the following figure depicts the detailed structure of these two chapters.

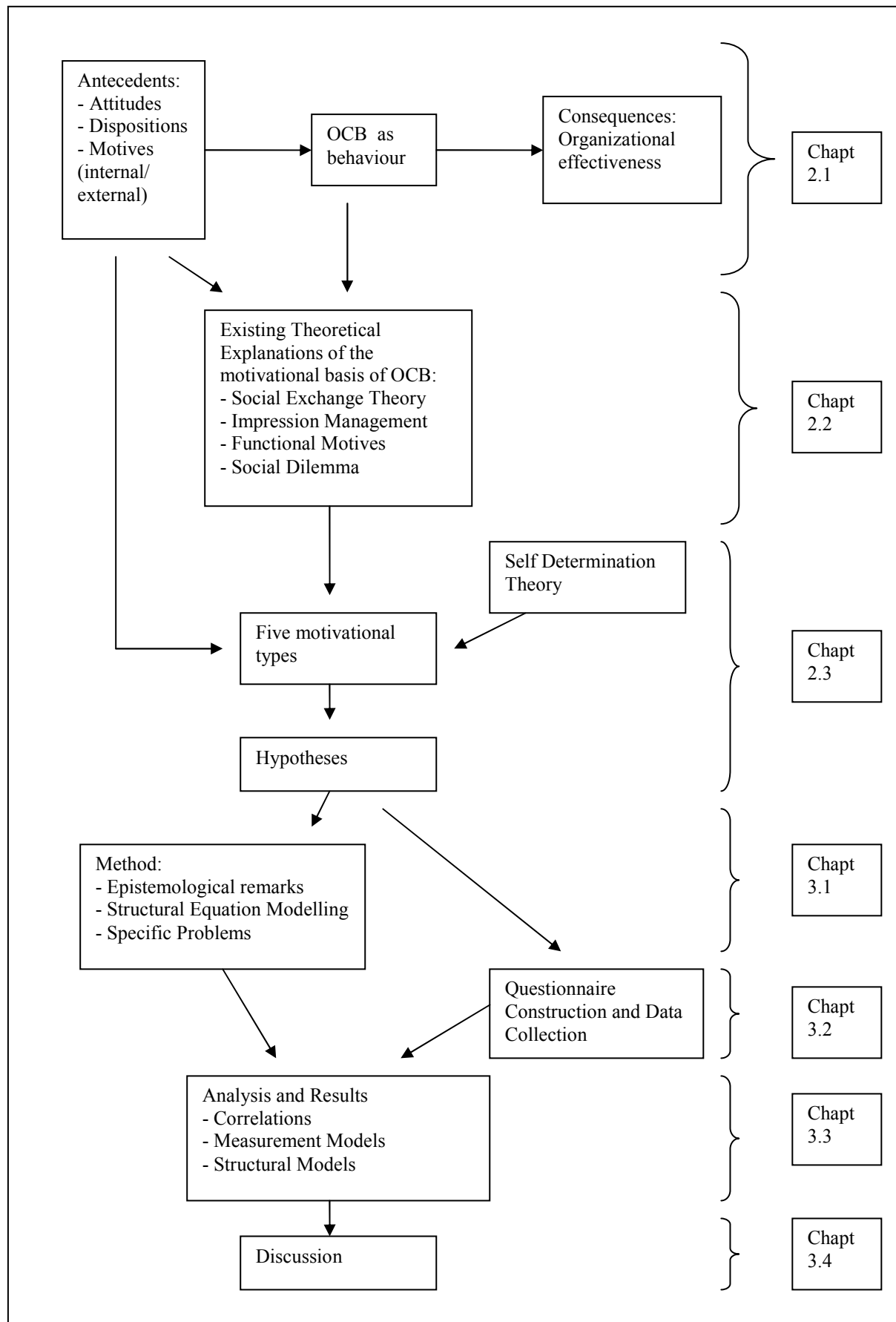


Figure 2: detailed structure of chapter 2 and 3

2. Theory

2.1 What is OCB?

In order to structure the comprehensive body of research on OCB, this chapter sticks to a sequential approach. After discussing the construct, it looks at the antecedents and finally comments on the consequences of OCB.

Following a sequential approach has three distinctive advantages. First, it corresponds to major books and meta-analyses on the topic. For example, the handbook of Organizational Citizenship Behaviour edited by Turnipseed (Turnipseed, 2005), a recent book by Organ et al. summarizing the past twenty-five years of research on the topic (D. W. Organ et al., 2006) and the most cited meta-analysis conducted by Podsakoff et al. (P. M. Podsakoff et al., 2000) all use this structure.

Second, structuring according to the sequential model neatly highlights the focus of OCB research during the past 30 years. For example, a prominent group of studies has been concerned with identifying and measuring the effects of OCB on organizational effectiveness and decision making. This group of studies can be summarized and discussed under the generic term “consequences”. The same logic applies to studies investigating ways to influence OCB (subsumable under “antecedents”) and to studies analysing the meaning of the term OCB (subsumable under “construct”).

Third – and in the context of this thesis most importantly – the chosen structure points to relevant topics related to the motivational basis of OCB. Discussing the meaning of the term OCB implies clarifying the relation between motivation and behaviour. Studying antecedents provides hints to what motivates OCB. And elaborating on the consequences of OCB reveals the possibility that OCB can be motivated externally.

Construct (chapter 2.1.1)

This section aims to answer the question “What is OCB?”. Since scholars have proposed various, in part divergent definitions, a complete review requires juxtaposing the most relevant conceptualizations of OCB. Based on this review we develop a working definition of OCB which we’ll use all through this thesis.

From a motivational point of view, the section dealing with the construct brings up the question what the relation is between motivation and behaviour in defining OCB.

Antecedents (chapter 2.1.2)

Up to now, most empirical work on OCB has been concerned with identifying significant antecedents. In order to present the state of the art in a comprehensive, yet tight manner, this section focuses on the presentation and discussion of several meta-analyses.

Presenting empirical evidence centring on antecedents directly leads to considerations about the most effective ways to influence OCB (“How can we influence OCB”). And referring to motivation, discussing antecedents provides answers to the general question “What motivates OCB?”.

Consequences (chapter 2.1.3)

Studying the consequences of OCB is of great importance, because they lie at the heart of the construct’s definition, they determine the relevance for practice (“what are the positives consequences of OCB?”) and they reveal information concerning the motivational basis of OCB (“How do the consequences influence the motivational basis of OCB?”). Hence, the final section comments extensively on these consequences.

The structure of chapter 2.1. is depicted in the figure below. In addition, the figure lists for each subchapter the focus of OCB research and the relevance for investigating the motivational basis of OCB.

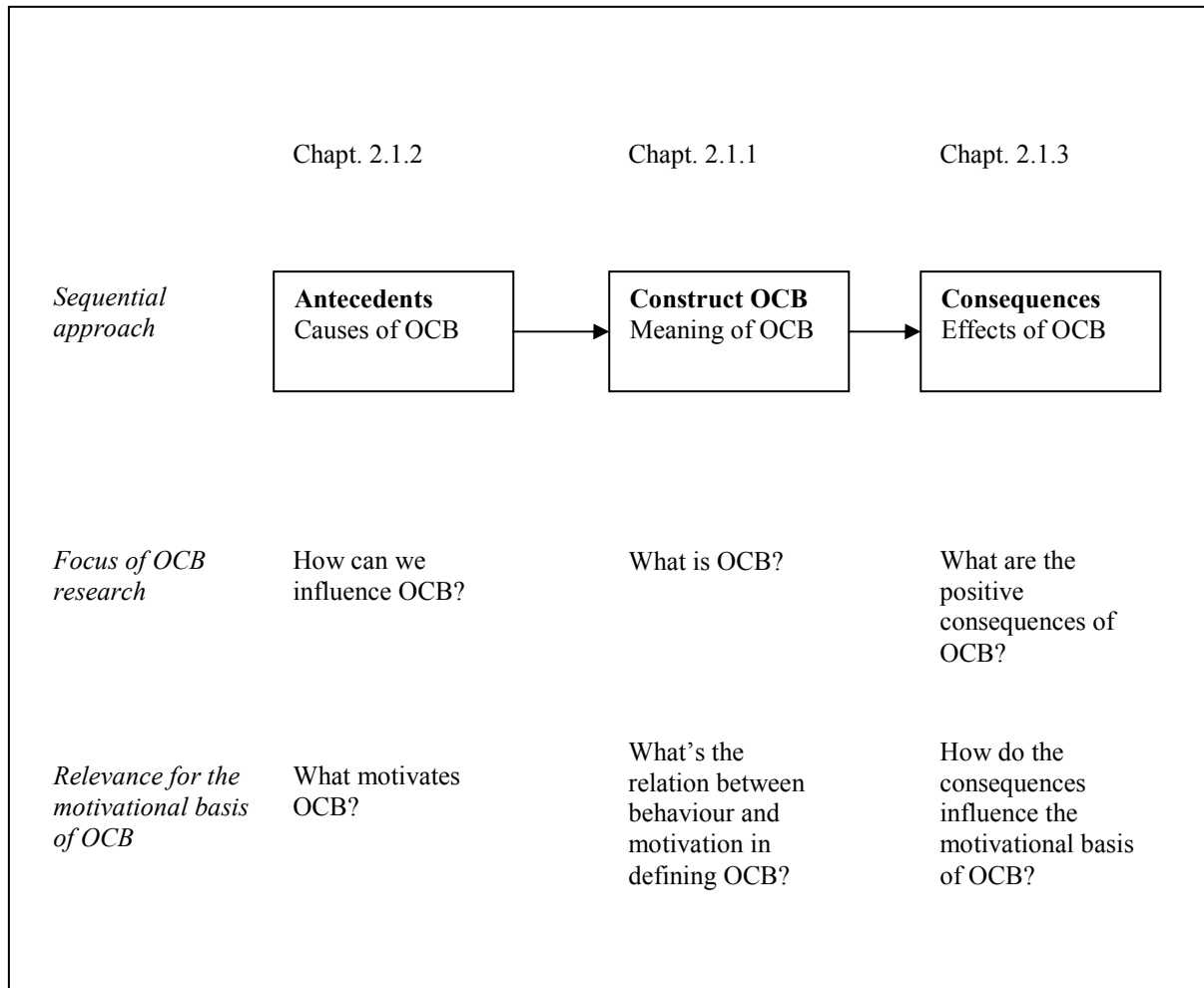


Figure 3: Structure of chapter 2.1

2.1.1 The construct OCB

In developing a definition of OCB two problems arise. The first problem consists of the construct's different conceptualisations. Starting with the seminal work of Organ et al. at the beginning of the eighties, the meaning of the construct has evolved in several directions. The second problem arises because OCB conceptually overlaps with similar constructs like extra-role behaviour or contextual performance. This problem is aggravated by recent tendencies to employ the term "OCB" for research in the traditions of contextual performance and extra-role behaviours. As a consequence, in a paper the term "OCB" could be used according to Organ's original conceptualization or according to the definitions of contextual performance and extra-role behaviours.

To deal with these problems, the next section starts with the first definition proposed by Organ and describes the shifts and the differentiation in the construct's meaning (2.1.1.1). Ten years after the first publications on OCB, researchers in the area of employee selection argued for an enlargement of the performance domain and introduce a new construct termed "contextual performance" (2.1.1.2). In contrast to the dominant research stream, which models OCB as reactive behaviour, Van Dyne and her colleagues draw on political philosophy to put forth her notion of OCB as proactive behaviour (2.1.1.3). The section ends with an outline of recent debates which include questions concerning the vagueness of role borders and the appropriate level of modelling OCB. In addition, this last part critically compares the different conceptualizations exposed in this section (2.1.1.4).

For the sake of brevity, it is not possible to expose all constructs which have been discussed in the development and refinement of OCB. For example, "prosocial organizational behaviour" is proposed by Brief & Motowidlo (1986) shortly after Organ has introduced OCB. Both constructs share many features, the greatest difference being that OCB focuses on functional behaviour whereas prosocial organizational behaviours encompass functional and dysfunctional behaviour alike (Brief & Motowidlo, 1986). A further instance is "organizational spontaneity", a construct put forth by George & Brief (George & Brief, 1992). Drawing on the same intellectual roots, organizational spontaneity is closely related to OCB. As a distinguishing feature, organizational spontaneity allows behaviours to be recognized by the formal reward system.

The temporal evolution of OCB, contextual performance and extra role behaviour is depicted in the figure below.

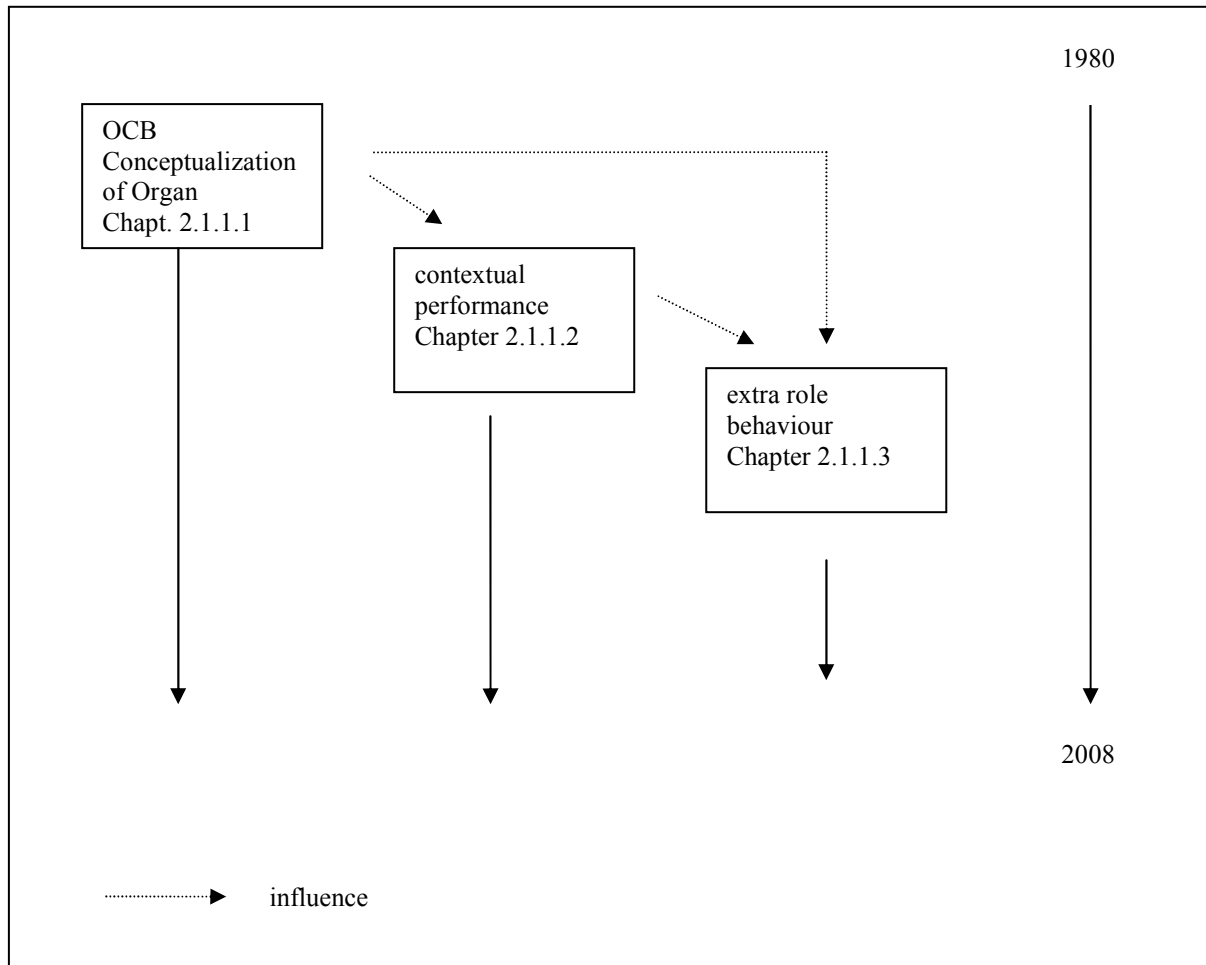


Figure 4: Temporal Evolution of OCB and similar constructs

Besides clarifying the meaning of the construct, discussing OCB, contextual performance and extra – role behaviour reveals valuable information regarding the motivational basis of OCB. This information can be assigned to one of the following three areas.

I) Behaviour vs. motivation

What OCB scholars agree upon is that OCB is somehow related to a specific category of work behaviour. But they disagree about whether specifying the meaning of the construct should include statements about motivation or not. Or to put it differently: Is OCB behaviour that is per definitionem motivated in a certain way or is OCB an observable work behaviour which should be strictly separated from its underlying, unobservable motivation? This question is relevant for the present thesis, because it influences the construct's definition and the way to model it appropriately.

II) Internal vs. external motivation

One eminent topic in discussing human motivation in organizations is the distinction between intrinsic and extrinsic motivation. Because of reasons explained in chapter 2.3.1, we prefer the term “internal” to “intrinsic” and the term “external” to “extrinsic”. People are internally motivated if their actions have a (perceived) internal locus of control¹¹. By contrast, they are externally motivated if their actions have a (perceived) external locus of control. Distinguishing between internal and external motivation helps to understand and manage the motivational basis of OCB. In addition, the motivational framework put forth in this thesis is based on an elaborated version of the internal/ external dichotomy.

III) Underlying motivation -theoretical explanation

Even though the literature discussed in this chapter predominantly deals with defining the construct, it contains hints regarding theoretical explanations why people engage in OCB. Since the present thesis develops and tests a motivational framework based on theory, it is useful to elaborate from the papers at hand theoretical explanations related to the motivational basis of OCB.

Each of the following three sub-chapters comments on these three areas of interest.

2.1.1.1 The conceptualization of Organ

To expose the basic ideas behind Organ’s conceptualization of OCB, it seems most appropriate to discuss in chronological order some of his most influential papers. Thus, this section firstly describes two papers that lay the foundations for the rise of OCB, then continues with two papers that mark important shifts, before concluding with a recent contribution and some references to other studies related to OCB.

I) Organ (1977), or, That Same Old Song ... But with a Twist

At the time when Organ wrote this article, the thesis that satisfaction causes performance was under attack from the vast majority of behavioural researchers¹². In fact, empirical evidence

¹¹ This definition of internal motivation is influenced heavily by Self-Determination Theory. For a discussion of this theory, see chapter 2.3.1.

¹² Since the thesis that employee’s satisfaction is positively related to employee’s performance is one of the most prominent statements originating from the Human Relation School, the questioning of this thesis constitutes an attack on the Human Relation School itself.

indicated that the opposite thesis, i.e., that performance causes satisfaction, represented organizational reality much better. However, Organ argued that it was premature to abandon the original thesis completely (D. W. Organ, 1977). Indeed, conceptual and empirical reasons suggested that a restatement of the thesis would restore its explanatory power. Scrutinizing the empirical evidence revealed that, in some studies, satisfaction was shown to have a positive, albeit moderate effect on performance, but in other studies it appeared to have no effect. According to Organ, this is a hint pointing to boundary conditions determining the circumstances under which the hypothesis is true. This notion was supported by interpreting the hypothesis as a special case of social exchange. Considered this way, employees may want to balance satisfaction resulting from organizational rewards by showing higher levels of effort¹³. However, enhanced performance is not the only way employees can reciprocate. If the provision of rewards occurs in certain circumstances (e.g. reward is perceived as controlling), employees may reciprocate by showing reactance rather than improved performance. In other cases, employees simply do not have the opportunity to pay back rewards with higher task effort, because the tasks are determined by technology and organizational procedures. Or, in Organ's words:

“When this is the case (i.e. the task is determined), performance,..., is limited in the opportunity it affords participants to reciprocate rewards from organizational officials; participants, to the extent they actually wish to reciprocate, must choose other types of work behaviour” (Organ 1977, p.50).

According to Organ, these other types of work behaviour include among others cooperation, compliance and avoidance of hassles; all of which are part of later conceptualizations of OCB. Hence, although the term OCB was not yet used, this article put forth the central idea that employees may perform non-task related work behaviour to reciprocate favourable treatment by the organization.

II) Smith, Organ & Near (1983), or, the birth of a Research Program

In this paper, which is essentially an empirical study of specific forms of work behaviours in the banking sector, Organ et al. presented several ideas that later became the very core of OCB research (Smith et al., 1983)¹⁴.

¹³ Employees are inclined to reciprocate because they have internalized equity norms.

¹⁴ The goal of the present enumeration is to put forth those ideas that were of great influence to subsequent OCB research. Considering the huge impact this article had on many researchers in the realm of OCB, it wouldn't be wrong to call it the “founding manifesto of OCB research”.

First of all, they introduced the term Organizational Citizenship Behaviour: “Every factory, office, or bureau depends daily on a myriad of acts of cooperation, helpfulness, suggestions, gestures of goodwill, altruism, and other instances of what we might call citizenship behaviour” (Smith et al. p 653)¹⁵.

Second, OCB is considered to be a category of work performance. Thus, OCB is behaviour which meets a specific requirement: it contributes to the effective functioning of the organization.

Third, OCB as a category of work performance is detached from satisfaction. In his first paper on the topic, Organ refers to those parts of performance which had traditionally been ignored when investigating the satisfaction-causes-performance hypothesis. Now, OCB encompassed a set of work behaviours without any reference to factors that might have an impact on it.

Fourth, the authors point to intellectual influences going beyond the satisfaction-performance debate. On the one hand, they invoke Katz, who had identified innovative and spontaneous activity that goes beyond role prescription as vital for an effective organization and who stated that: “an organization which depends solely upon its blue-prints of prescribed behaviour is a very fragile social system” (Katz 1964, p. 132)¹⁶. Non-predictability and transcending role prescriptions are central features of OCB as well. On the other hand, they make references to Roethlisberger and Dickson, who argued that organizational success is based on both efficiency, or “logic of facts”, which is rooted in the formal organization, and cooperation, or “logic of sentiments”, which is a product of informal organization (Roethlisberger & Dickson 1964). In Organ’s exegesis, cooperation is similar to OCB and contributes, at the aggregate level and over the long run, to organizational performance, because “...they lubricate the social machinery of the organization. They provide the flexibility needed to work through many unforeseen contingencies; they enable participants to cope with the otherwise awesome condition of interdependence of each other” (Smith et al. 1983, p. 654).

Fifth, formally prescribed performance and OCB can not only be distinguished because OCB is discretionary, while formally prescribed behaviour is not. They also differ in their motivational bases. While formal performance is often governed by incentives and sanctions, the subtle, hardly measurable nature of OCB makes it difficult to employ the same incentive

¹⁵ Interestingly, the authors do not mention why they choose the term OCB.

¹⁶ According to Katz, three types of behaviour are essential for a functioning organization: a) people must be induced to enter and remain within the system; b) they must carry out specific role requirements and c) they must engage in innovative and spontaneous activity that goes beyond role prescriptions (Katz 1964).

structures. Hence, the frequent occurrence of OCB must be due primarily to some kind of “internal motivation”¹⁷.

Sixth, in figuring out what exactly motivates OCB, the authors introduced and empirically tested several categories of antecedents. Besides satisfaction, they included personality factors and aspects of workplace environment (i.e. leader supportiveness and task interdependence) in their models. Thus, the most important antecedents are supposed to be attitudes, personality traits and organizational context¹⁸.

Seventh, in order to clarify the behavioural content of OCB, the authors asked supervisors to specify non-prescribed behaviours they considered to be functional for the organization¹⁹. Analysing this data revealed a stable two-factor structure which consists of a factor termed “altruism”²⁰ and a factor called “generalized compliance”. Altruism refers to acts of helping co-workers, while generalized compliance is interpreted as compliance with internalized norms defining what a good employee ought to do²¹.

And finally, fitting structural models for altruism and generalized compliance shows that these two types of OCB differ in their antecedents. Whereas job satisfaction mediates the relationship between leader supportiveness and altruism, satisfaction does not play a significant role in explaining compliance. Thus, OCB has different behavioural manifestations (i.e. it can come in the form of altruism or conscientiousness), which are viewed as separate constructs by supervisors and which have different nomological networks.

III) Organ (1988), or, Metamorphosis: from Satisfaction to Fairness

In this conceptual article, Organ returns to the satisfaction-causes-performance hypothesis only to propose another re-interpretation of it (D. W. Organ, 1988).

As discussed in section I) above, Organ’s first paper has shed new light on the satisfaction-performance-link by focusing on performance (D. W. Organ, 1977). As a result, Organ had proposed to enlarge the performance domain to include OCB. Thus, satisfaction accounts primarily for those parts of performance that are not formally prescribed.

¹⁷ Organ does not rule out external motivation. He only states that, due to the defining characteristics of OCB, it is unlikely that employees engage in OCB because they are externally motivated. For a definition of internal motivation, see the introductory part of chapter 2.1.

¹⁸ Even a cursory inspection of the meta-analyses discussed in chapter 2.1.2 suffices to note that these categories of antecedents account for the vast majority of empirical research on OCB.

¹⁹ Starting with this study, supervisor rating of OCB became the most prominent method of measuring OCB.

²⁰ In this context, “altruism” is a difficult term, because it may evoke associations of selflessness. However, the term simply describes behaviour and makes no assumptions regarding the underlying motivation.

²¹ This two-factor structure is still the most reliable categorization of OCB. In addition, it is quite similar to William and Anderson’s model of OCBI and OCBO (Williams & Anderson, 1991).

In the present paper, however, the author argues that scrutinizing satisfaction also provides new insights. Being an attitude, satisfaction consists of both a cognitive and an affective element. Since both the cognitive and the affective element play an important role in prominent theoretical explanations of helping behaviours, it makes sense to use these theories to explain why people who are highly satisfied engage in OCB.

According to the mood-state explanation of helping behaviour, people who are in a positive mood are more likely to help. Thus, the affective part of job satisfaction can be interpreted as a positive mood state that drives employees to perform OCB.

Regarding the cognitive part of satisfaction, the author argues that – in line with Social Exchange concepts – these cognitions are primarily about fairness. Hence, perceived fairness exerts a substantial influence on OCB.

Finally, since conceptualizations of satisfaction place greater emphasis on the cognitive than on the affective component, Organ concludes that a positive influence of satisfaction on OCB can mainly be attributed to fairness.

IV) Organ (1997) or: the Great Clean-up

In this article, Organ comments on the state of research on OCB and responds to criticisms regarding his definition of OCB (D. W. Organ, 1997). The two points most heavily debated are the notion that OCB is discretionary (i.e. it transcends formal role prescriptions) and that it is not formally rewarded. Research on role perceptions has shown that employees differ in what they consider to be extra-role behaviour (Morrison, 1994). Hence, it seems difficult to specify generic types of OCB. Switching to job requirements as a distinctive feature provides little help, because in modern work organizations the job construct is also vague. When it comes to incentives in the sense of contractually guaranteed rewards, the problem is that even task performance is often not formally rewarded. Therefore, formal rewards may be as poor a distinctive feature as role concepts. As a consequence, only the requirement that OCB promotes the effective functioning of the organization is widely accepted in the scientific community. But task performance also has a positive impact on the organization, making it useless to distinguish between task performance and OCB.

To escape this unsatisfactory state, Organ proposed abandoning the original definition and redefining OCB in the sense of contextual performance, a construct proposed by Motowidlo et al. (Motowidlo & Van Scotter, 1994). Hence, the new definition was as follows:

“OCB (are) contributions to the maintenance and enhancement of the social and psychological context that supports task performance” (Organ 1997, p. 91).

V) Organ (2006), or, Back to the Roots

In a recent book, Organ et al. summarize more than two decades of research on OCB (D. W. Organ et al., 2006). It is beyond the scope of this section to review this book in detail, and many insights are discussed in a later chapter of this thesis. But in the context of construct development it is worth noting that Organ refutes the definition he adopted nine years ago and returns to the original definition, which was presented for the first time in his paper with Smith and Near in 1983. Thus, the definition is as follows:

“OCB is individual behaviour that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization” (Organ 2006, p.3)

The arguments in favour of this definition are the same as those mentioned in section II above. In addition, Organ doesn't consider the difficulties in defining role boundaries and in determining which behaviours are not formally rewarded to be as severe as in his paper written in 1997 (Organ 1997).

VI) Miscellaneous Works

In addition to the papers discussed in the sections above, Organ's work regarding OCB has dealt primarily with questions of the relative weight of different antecedents and with the interpretation of OCB in different cultures. For example, Organ and Konovsky investigated the influence of mood state and fairness cognition in a hospital setting and found that fairness cognitions account for more variance in OCB than mood state (D. W. Organ & Konovsky, 1989). Concentrating on personality predictors, a review of the literature reveals that dispositional affectivity is not an important predictor of OCB (D. W. Organ, 1994). Finally, another study in the hospital context showed that dispositional variables like agreeableness, conscientiousness and equity sensitivity do not explain variance beyond fairness (Konovsky & Pugh, 1994).

When it comes to cultural issues, Paine and Organ draw on the concepts of power distance and the individualism-collectivism dichotomy to propose a conceptual framework explaining global nuances in OCB (Paine & Organ, 2000). Lastly, an empirical study in the People's Republic of China revealed that traditional “western” forms of OCB also exist in China. However, additional behaviours like self-training and social welfare participation (e.g.

donating blood, assisting elders) should be added to the construct OCB to account for the specific cultural context of China (Fahr et al., 2004).

Discussion

As the founding father of OCB, Organ's contribution to the development and definition of OCB can hardly be overestimated. Not only did he coin the term OCB, but his definition is widely accepted and has become a central concept in organizational behaviour and management research. In the context of this thesis, two achievements are especially important. Firstly, Organ proposed and established the two-factor structure comprising altruism and generalized compliance²². This structure can be seen as the predecessor of the OCBI/OCBO taxonomy, which is used to model OCB in this thesis²³. Having shown that altruism and conscientiousness have different antecedents, this thesis also proposes dissimilar motivational bases for OCBI and OCBO. Secondly, Organ was also the first to propose a theoretical explanation for the motivation underlying OCB. Drawing on Social Exchange Theory, he postulates that employees may reciprocate favourable treatment by engaging in OCB. Social Exchange Theory is still the most frequently used theoretical explanation why OCB occurs.

However, some critical points are also worth mentioning. First, the second restatement of the satisfaction-causes-performance hypothesis, which focuses on equity cognitions, leads to a preoccupation with fairness and neglects other potential antecedents.

Second, "Organ's turn" in 1997 caused much confusion. Rejecting his original definition and embracing contextual performance did not contribute to conceptual clarification, because the problems of vagueness, changing role borders and formal rewards remain the same. In addition, this re-interpretation results in two definitions (i.e. Organ's original definition and Organ's adapted definition which equates OCB with contextual performance) that exist simultaneously and that make it difficult to compare different studies²⁴:

I) Organ's original definition

²² This taxonomy may cause confusion. Organ uses "altruism" in the sense of helping behaviour aimed at individuals in face to face situations. "Generalized compliance", by contrast, pertains to a more impersonal behaviour which represents compliance with internalized norms.

²³ For a more detailed discussion of OCBI and OCBO, see chapter 3.1.3.2.

²⁴ As a result, the terms OCB and contextual performance are often used interchangeably in the literature. For additional information on the relation between OCB and contextual performance, see chapter 2.1.1.2.

“OCB is behaviour that is discretionary, not rewarded by the formal reward system and that in the aggregate promotes the effective functioning of the organization” (D.W. Organ, 1988, p.4).

II) Organ's adapted definition

“OCB are behaviours (that) do not support the technical core itself so much as they support the broader organizational, social and psychological environment in which the technical core must function.” (D.W. Organ, 1997, p.90)

When it comes to the motivational basis of OCB, Organ's writings reveal three things. *First*, Organ thinks that motivation and OCB are two distinct constructs. Hence, OCB should be defined without referring to its underlying motivation: “However, our contention is that understanding the proximal motive for OCB is not essential to our appreciation of it, nor to our recognition, definition or understanding of it. In the definition of OCB, then, that we presented earlier in this chapter, we exclude from it any qualifiers about motives” (Organ 2006, p. 7).

Second, in Organ's view, OCB is motivated by different motives: “Our position is that OCB, like most human behaviours, is caused by multiple and overlapping motives” (Organ 2006, p.7). However, he argues that internal motivation plays a greater role than external motivation: “Because citizenship behaviour goes beyond formal role requirements, it is not easily enforced by the threat of sanctions” (Smith & Organ, p. 654). Considering the possibility that appraisal systems could entail external motivation, Organ notes: “But given the infrequency and unsystematic nature of most appraisal systems, coupled with the fact that many supervisors have limited control over formal rewards, it seems unlikely that most of the variance in “good citizen” behaviour is explained by the calculated anticipation that they will pay off in largesse for the person “ (Smith & Organ, p. 654).

Finally, right from his first paper on the topic, Organ refers to Social Exchange Theory as adequate theoretical explanation for why people engage in OCB: “Little effort has been given to explaining the logic from which the satisfaction-causes-performance hypothesis came. Such logic may represent an embryonic version of contemporary theories of equity and reciprocity in social exchange” (Organ 1977, p. 46). In particular, Organ assumes that employees have internalized norms of reciprocity which entail them to perform OCB as a deliberate response to favourable treatment by the organization.

2.1.1.2 Contextual performance

Ten years after the first articles on OCB were published in leading journals, Motowidlo and Van Scotter introduce a similar construct termed “contextual performance”, (Motowidlo & Van Scotter, 1994). The authors cite three main influences which led them to postulate the new construct. Firstly, they build on Katz and Kahn’s distinction between behaviour which is prescribed by formal role definitions, and spontaneous innovative behaviour which goes beyond role requirement (Katz & Kahn, 1978). Secondly, they refer to research dealing with cooperation and helping behaviour in organizational contexts (Brief & Motowidlo, 1986; George & Brief, 1992; D.W. Organ, 1988). And finally, the authors use a distinction, established in selection research, between behaviour which contributes to organizational effectiveness through task proficiency and behaviour which enhances organizational effectiveness in other, indirect ways. Consequently, contextual performance is supposed to be discretionary behaviour, includes prominent helping and cooperating behaviour and is clearly distinguishable from task performance. Formally defined, task performance is “performance behaviour bear(ing) a direct relation to the organization’s technical core, either by executing its technical processes or by maintaining and servicing its technical requirements” (Motowidlo & Van Scotter, 1994, p. 476). Contextual performance, on the other hand, is defined as “performance behaviours (that) support the broader organizational, social and psychological environment in which the technical core must function” (Motowidlo & Van Scotter, 1994, p. 476). Besides encompassing different behavioural domains, contextual performance and task performance are also supposed to have both different antecedents and consequences. For instance, while experience and task-related abilities and skills are likely to influence task performance, personality variables such as motivation or interpersonal skills may be more strongly related to contextual performance.

In order to test these propositions, the authors asked supervisors to rate task, contextual and overall performance of 421 Air Force mechanics. Each mechanic filled in a questionnaire measuring personality and other variables. The results reveal two things. First contextual performance and task performance contribute independently to performance evaluations by supervisors, with contextual performance explaining about 20% of the variance in overall performance beyond variance explained by task performance²⁵. Second, experience explains more variance in task performance and personality factors account for more variance in contextual performance. Since contextual performance explains variance in performance evaluations above task performance and since contextual performance has different

²⁵ These results were derived performing hierarchical regression with overall performance as dependent and both task and contextual performance as independent variables.

antecedents than task performance, it makes sense to distinguish between these two form of work performance.

In a follow-up study, Van Scotter and Motowidlo aimed to replicate the finding that supervisors actually do take task performance and contextual performance into account when evaluating their employees (Van Scotter & Motowidlo, 1996). In addition, they proposed interpersonal facilitation and job dedication as separate facets of contextual performance. Interpersonal facilitation consists of interpersonally oriented behaviours like helping that contribute to organizational effectiveness. Job dedication includes self-disciplined behaviours such as following rules or showing extra effort. Job dedication and interpersonal facilitation are not only supposed to encompass different behavioural domains, they are also thought to have different antecedents. As in the previous study, supervisors rated Air Force mechanics on various facets of job performance. The results show that task performance, job dedication, and interpersonal facilitation all explain unique variance in the performance ratings. However, both task performance and interpersonal facilitation overlapped to a high degree with job dedication. Hence this study shows that task performance and contextual performance are both important predictors of performance appraisals, that both have different antecedents and that interpersonal facilitation is a central facet of contextual performance. As far as job dedication is concerned, the authors propose that it should be incorporated into task performance and contextual performance.

In another article published one year later, Borman & Motowidlo further elaborate on the contextual performance construct (Borman & Motowidlo, 1997). Integrating work on OCB, Prosocial Organizational Behaviour and soldier effectiveness they propose a more detailed taxonomy of contextual performance. This new taxonomy consists of five categories: persisting with enthusiasm and extra effort, volunteering to carry out additional tasks, helping and coordinating with others, following organizational rules and endorsing, supporting and defending organizational objectives. In addition, the authors provide a more fine-grained account of the relationship between personality factors and contextual performance. Results reveal that dependability, cooperativeness and internal locus of control are much more highly related to contextual performance than to task performance.

While research on contextual performance has been influenced by concepts like OCB or Prosocial Organizational Behaviour, how these concepts are related to each other remains

vague. Addressing this issue, Coleman & Borman aim to investigate the underlying structure of the citizenship domain (Coleman & Borman, 2000). By employing content sorting methods, factor analysis, multidimensional scaling, and cluster analysis, the authors choose an empirically driven and explorative approach. Content sorting is done by experts and yields a similarity matrix representing the degree of content overlap between two constructs. The similarity matrix is analysed using the exploratory statistical methods mentioned above. Factor analysis suggests a four-factor solution which explains fifty-nine percent of total variance. However, according to both multidimensional scaling analysis and cluster analysis, three factors best represent the similarity matrix. Integrating these divergent yet overlapping results, the authors propose a citizenship performance domain which consists of three categories. Each of these categories is characterized by a specific beneficiary. Interpersonal performance is citizenship behaviour directed at other people, organizational performance is directed at the organization as an abstract entity, and job citizenship performance is behaviour which is task related but clearly transcends formal requirements²⁶.

Empirical results like those presented by Coleman & Borman and theoretical claims like those expressed by Organ lead to the question whether OCB and contextual performance are really different constructs (Coleman & Borman, 2000; D.W. Organ, 1997). Addressing this question, Motowidlo argues that there are still enough differences to maintain OCB and contextual performance as independent constructs (Motowidlo, 2000). On a theoretical plane, Motowidlo points to different origins, which result in divergent research foci. While OCB is introduced as a result of studying the behavioural consequences of job satisfaction, contextual performance is proposed to expand research and practice in the area of employee selection. On a methodological plane, OCB and contextual performance are supposed to be modelled differently. Since contextual performance is described as the algebraic sum of all behavioural episodes representing this construct, it is clearly an aggregate construct. OCB, however, refers traditionally to a general propensity to engage in extra-role behaviour. Thus, a latent construct approach seems to be an appropriate representation for OCB²⁷.

Since the introduction of contextual performance by Motowidlo & Van Scotter, most research has focused on specifying the construct domain and on establishing links between personality

²⁶ Interpersonal performance and organizational performance are quite similar to OCBI and OCBO respectively, a correspondence discussed in greater detail at the end of this chapter.

²⁷ There is an ongoing debate whether OCB should be modelled as an aggregate or as a latent construct. In this article, Motowidlo exposes some interesting considerations related to this debate. These considerations are discussed in chapter 3.1, which deals explicitly with formative and reflexive indicators.

traits and contextual performance. Yet, the consequences of contextual performance have rarely been investigated. In order to address this gap, Van Scotter et al. reanalyse their Air Force Sample by including data about formal and informal rewards (Van Scotter, Motowidlo, & Cross, 2000). Employing a longitudinal research design, the study reveals that task performance explains unique variance in career advancement, while contextual performance explained separate variance in informal rewards. As a consequence, the study reveals that both contextual performance and task performance are rewarded, with contextual performance being more strongly related to informal rewards than task performance. However, the variance in career advancement explained by contextual performance and task performance is relatively small compared with other factors like tenure.

Discussion

The introduction of contextual performance has sparked new interest in conducting empirical research on the linkage between citizenship performance and personality factors. Since Organ & Ryan published their meta-analysis in 1995 – just one year after contextual performance first appeared in academic journals – there has been interest in updated meta-analytic evidence (D.W. Organ & Ryan, 1995). A study conducted by Borman et al. summarizes empirical studies that measure both traits and citizenship behaviour (Borman et al., 2001). According to the results, the following personality constructs have weighted mean correlations greater than 0.15: conscientiousness, positive affectivity, locus of control, other-oriented empathy, and helpfulness. In addition, conscientiousness and dependability show significantly higher correlations with contextual performance than with task performance. The inclusion of prosocial personality, which consists of helpfulness and other-oriented empathy and has been developed by Penner et al., adds additional significance to this study because it leads away from focusing on the big five model²⁸ and opens the door for a research stream which has traditionally considered personality factors, attitudes and motives to be joint antecedents of citizenship behaviour²⁹ (Penner et al., 1997).

²⁸ The big five model encompasses five dimensions of personality discovered through empirical research. These five factors are openness, conscientiousness, extraversion, agreeableness and neuroticism. For a comprehensive review of the big five model see McCrae & Costa (McCrae & Costa, 1996).

²⁹ The functional approach, which is applied by Penner and others to citizenship behaviour, has been highly influential in reframing the thinking about the motivational basis of OCB (Penner, Midili, & Keglemeyer, 1997). For a more detailed account, see chapter 2.2.1.3.

To evaluate the new construct's significance, it is essential to bear in mind the circumstances that led to its development. The origin of contextual performance lies in the personality-performance debate and the practical focus is clearly on employee selection. Hence, an important contribution of research on contextual performance is the recognition that contextual performance is an integral part of an employee's performance. In addition, work in the tradition of Motowidlo and others has led to a renewed interest in personality traits as antecedents of OCB.

However, some critical points are also worth mentioning. First, research on contextual performance has quite a narrow focus on personality predictors. Considering the rather small amount of variance explained by these personality factors, it remains open which antecedents other than personality have a strong influence on contextual performance. Research conducted in the realm of OCB indicates that attitudes generally have a stronger influence on citizenship performance than personality traits (D.W. Organ & Ryan, 1995). Second, there is a lack of empirical evidence regarding the consequences of contextual performance. Up to now, only one study explicitly deals with the outcome of contextual performance (Van Scotter et al., 2000). The vast majority of research in this area focuses on distinguishing different forms of performance and their relations to personality factors. Hence, there is not enough evidence to validate the claim that contextual performance has a positive impact on organizational effectiveness. Third, the propositions that contextual performance and task performance have different antecedents and that they refer to clearly separable performance domains lack theoretical justification. The arguments for the prominent role of personality traits in predicting contextual performance are based on empirical analogies and some common-sense reasoning, but not on an identifiable theory. In addition, the distinction between both forms of job performance follows from the definition of contextual performance and task performance. However, these definitions do not allow a clear line to be drawn between contextual performance and task performance. For example, showing extra effort for a task which is part of the "technical core" equally fits the definition for contextual performance and the definition for task performance.

At first sight, contextual performance and OCB seem to cover similar behaviours. Yet, there are differences that justify treating OCB and contextual performance as separate constructs. To make the distinguishing features salient, we have to look at the constructs' background as well as at their respective research focus, definition, subcategories and appropriate modelling.

While contextual performance is rooted in research about employee assessment and selection, OCB is influenced heavily by the human relation school. More specifically, early research on OCB intended to restate the satisfaction-causes-performance proposition, whereas contextual performance aimed to reinterpret the personality-causes-performance proposition. As a consequence, research on OCB focuses on studying the relationships between attitudes (predominantly fairness and leadership behaviour) and OCB. By contrast, scholars of contextual performance are primarily interested in the linkages between personality factors (mostly the big five model) and contextual performance. Considering the constructs' definitions, OCB is required to be discretionary, whilst contextual performance is not. In addition, while OCB represents behaviour that is not formally rewarded, contextual performance can be included in the formal reward system. When it comes to sub-categories, OCB consists of helping behaviour, generalized compliance, sportsmanship, courtesy and civic virtue. Contextual performance, however, just covers two sub-categories: interpersonal facilitation and job dedication. Finally, OCB is thought of as a general propensity to engage in discretionary behaviour, whereas contextual performance denotes an aggregation of several behavioural episodes. Accordingly, OCB is modelled as a latent construct and contextual performance as an aggregate construct.

The following table summarizes the differences between OCB and contextual performance.

	OCB	Contextual performance
Background	Human relation school; especially restating the satisfaction-causes-performance proposition	Research in personal psychology related to assessment and selection; especially restating the personality-causes-performance proposition
Research focus	Studying the relationships between attitudes (e.g. fairness and leadership) and OCB	Studying the relationships between personality factors (e.g. agreeableness), in-role performance and contextual performance
Definition	"OCB is behaviour that is discretionary, not rewarded by the formal reward system and that in the aggregate promotes the effective functioning of the Organization"	"contextual performance are performance behaviours (that) support the broader organizational, social and psychological environment in which the technical core must function"

Sub-categories	<ul style="list-style-type: none"> - helping behaviour - conscientiousness - sportsmanship - courtesy - civic virtue 	<ul style="list-style-type: none"> - interpersonal facilitation - job dedication
Modelling	Latent construct	Aggregate construct

Table 1: Differences between OCB and contextual performance

Having clarified the differences between OCB and Contextual Performance, we have to address another issue which often creates confusion. Since about ten years, the term OCB is used by some scholars for what we've described above as contextual performance. To understand this bewildering fact, we have to look at the evolvement of both terms. In 1988, Organ proposed his seminal definition of OCB (D.W. Organ, 1988). Six year later, Motowidlo put forth his definition of contextual performance (Motowidlo & Van Scotter, 1994). The confusion began in 1997, when Organ published a paper in which he rejected his original definition (D.W. Organ, 1997)³⁰. Rather, he favoured the definition of Motowidlo, but he proposed to call the corresponding construct OCB instead of contextual performance. Since then, the term "OCB" is used both in the sense of Organ's original definition and in the sense Motowidlo's definition. The term "contextual performance", however, is used according to Motowidlo's definition.

The picture below illustrates the temporal changes in the use of OCB and contextual performance.

³⁰ For a discussion of Organ's arguments for this turn, see chapt. 2.1.1.1.

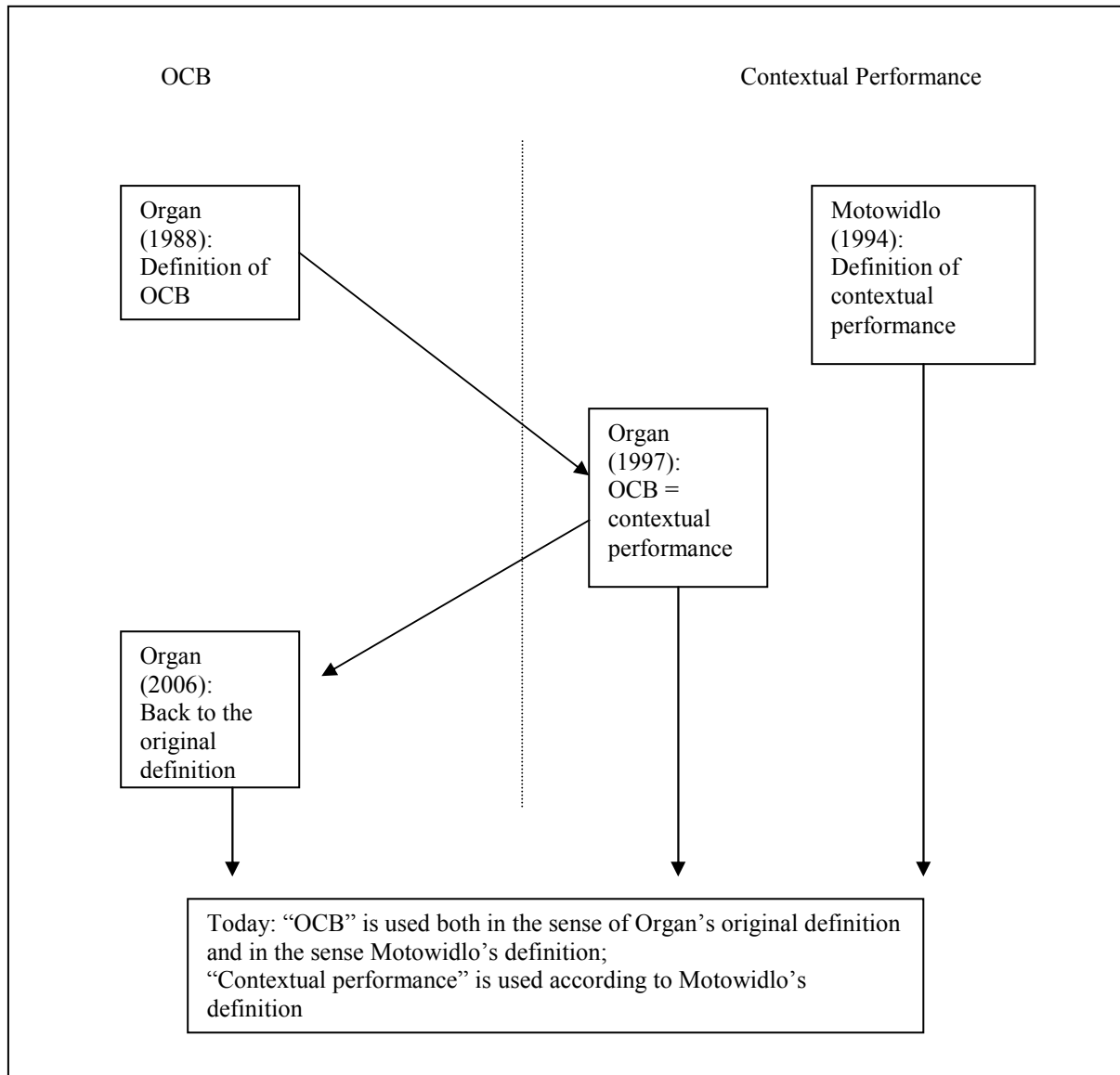


Figure 5: Temporal Changes in the use of OCB and Contextual Performance

Finally, we address our attention to statements referring to the motivational basis of contextual performance. What strikes first is that there seems to be no clear separation between motivation and behaviour. The following two statements by Motowidlo et al. support this finding:

“Our results suggest that definitions of task performance and interpersonal facilitation should be revised to include appropriate motivational elements of job dedication” (Van Scooter & Motowidlo 1996, p. 530).

“Perhaps it even makes better sense conceptually to leave the motivational elements attached to both the task and contextual sides of the performance domain” (Motowidlo et al. 1997, p. 76).

Regarding the prevalence of internal or external motivation, it is difficult to come to a clear conclusion, because the authors are interested in personality traits and not in motives. However, if we assume that a person who acts according to her dominant personal traits perceives her actions to have an internal locus of control; it is justifiable to consider contextual performance to be internally motivated.

Motowidlo et al. don't refer to an established theory to explain the motivation to engage in OCB. Rather, they propose a model stating that personality variables facilitate the development of contextual habits, skills and knowledge. These habits, skills and knowledge result in higher levels of contextual performance.

2.1.1.3 OCB meets political philosophy

One year after Motowidlo et al. introduced contextual performance as an alternative to OCB, Van Dyne and Graham proposed a reconceptualization influenced by ideas from political philosophy (Van Dyne, Graham, & Dienesch, 1994). Their argument starts with the notion that job performance (i.e. in-role performance) and OCB (i.e. extra-role performance) have traditionally been modelled as separate constructs. However, this distinction forces the researcher to determine what is in-role and what is extra-role behaviour, a vague distinction that varies across individuals, jobs, organizations and over time. To avoid this difficulty, the authors introduce the concept of "civic citizenship". In political philosophy, civic citizenship is supposed to include all the positive community-relevant behaviours of individual citizens. Transferring this concept into the organizational realm, "organizational citizenship" can be conceptualized as "a global construct that includes all positive organizationally relevant behaviours of individual organization members" (Van Dyne et al., 1994, p.766). As a consequence, the concept of OCB used by Van Dyne & Graham is broader than that used by Organ and includes in-role job performance, organizationally functional extra-role behaviours, and political behaviours such as full and responsible organizational participation. According to the authors, the proposed reconceptualization has – besides avoiding the in-role/extra-role debate – two major advantages. Firstly, research in the tradition of civic citizenship suggests three distinctive categories of OCB. These categories are "obedience", i.e. respect for orderly structures and processes, "loyalty", i.e. internalization of organizational values and "participation", i.e. responsible involvement in organizational self-governance. Secondly, insights from political philosophy facilitate the development of a nomological network,

relating antecedents, OCB and consequences. The nature of the relationship between employees and the organization is supposed to play an important role in the proposed nomological network³¹. If this relationship is characterized by open-end commitment, mutual trust and shared values, it is called a “covenantal relationship”. In the words of the authors, a covenantal relationship “is characterized by reciprocity and mutual commitment and the absence of predetermined inducements and contributions” (Van Dyne et al., 1994, p.772). This kind of relationship involves internally motivated effort and identification with the collective entity³². Covenantal relationships are supposed to be both the key driver of OCB and an important mediator, linking personal (e.g. job attitudes), situational (e.g. job characteristics) and positional (i.e. job level) antecedents with OCB³³. In order to test the new conceptualization of OCB and the mediating role of covenant relationships empirically, the authors conducted explanatory factor analysis on a primary data set, cross-validated the proposed factor structure with confirmatory factor analysis in a secondary data set and performed mediated regression analysis involving several antecedents, the mediator and the categories of OCB. In general, evidence supports the theoretically derived categories and the proposed mediated mechanism. However, two results do not agree with the hypotheses. First, covenant relationship only partially mediates the link between antecedents and OCB. And second, “participation” seems to be more complex in terms of both dimensionality and mediated relationships. To summarize, this study suggests that a different conceptualization of OCB based on political philosophy fits empirical data quite well and that covenant relationships are important influencing factors.

The divergent definitions of OCB and the proliferation of such other extra-role constructs as Prosocial Organizational Behaviour or Whistle Blowing create the need for a systemizing framework. Addressing this need, Van Dyne et al. propose a categorization which integrates various forms of extra-role behaviour (Van Dyne et al., 1995). The authors define extra-role behaviour as “behaviour which benefits the organization and/ or is intended to benefit the organization, which is discretionary and which goes beyond existing role expectations” (Van Dyne et al., 1995, p.218). This definition, which encompasses quite a broad range of behaviours, has some important implications. Firstly, extra role behaviour is behaviour which

³¹ A nomological network is a representation of latent constructs, their observable manifestations, and the interrelationships among and between these.

³² According to the authors, covenant relationships share many similarities with relational social exchange relationships and with psychological contracts. However, they differ in that covenant relationships involve acceptance and internalization of organizational values.

³³ For example, perceived interpersonal justice may lead to covenantal relationships which in turn result in higher level of OCB. Or put differently: covenantal relationships mediate the relationship between perceived interpersonal justice and OCB.

is voluntary, i.e. it is not role-prescribed nor part of formal job duties. As a consequence, the occurrence of extra role behaviour is not formally rewarded, and the absence of extra role behaviour is not formally punished. Secondly, extra role behaviour is supposed to have positive consequences for the organization. However, it is not necessary that these positive consequences actually materialize. It suffices that an employee performs a specific behaviour with the intention of benefitting the organization. The condition that the primary beneficiary of extra role behaviour is the organization and not the individual also has another implication. According to the authors, extra role behaviour is not rooted in employee's narrow self-interest. In other words, employees perform extra role behaviour because they have prosocial preferences³⁴. Finally, extra role behaviour can clearly be distinguished from in-role behaviour. Yet, this distinction can only be made for a specific situation, because role boundaries vary along multiple dimensions. Different observers (e.g. employee and supervisor) may have divergent ideas about which behaviours are extra role behaviour. The same is true for a single observer, who may adapt his role expectations according to employee groupings (e.g. manager and staff) or time (e.g. a newly hired employee and a senior). Hence, the specific content of extra role behaviour can vary, but it is possible in any specific case to draw a clear line between in-role and extra role behaviour. This notion marks a sharp contrast to earlier work by Graham and Van Dyne, who argue that one drawback of the traditional conceptualization of OCB is the difficulty of distinguishing extra role behaviour from in-role behaviour.

extra role behaviour is quite a broad construct, covering a wide range of different behaviours. In order to derive specific behavioural categories, the authors compare various forms of extra role behaviour and propose a typology which is based on two underlying dimensions³⁵.

	Prohibitive	Promotive
Affiliative	<i>Stewardship</i>	<i>Helping</i>
Challenging	<i>Whistle Blowing</i>	<i>Voice</i>

Table 2: A Typology of Extra-Role Behaviours (adapted from (Van Dyne et al., 1994))

³⁴ The authors do not explicitly mention the term “prosocial preference”. Yet, their description of the underlying motives corresponds to the concept of prosocial preference as it is used in this thesis.

³⁵ This typology not only entails the possibility of ordering different forms of extra role behaviour by assigning them to specific behavioural categories; it also allows one to propose different antecedents and consequences for each category.

The first dimension is termed “affiliative/challenging” and represents a continuum which captures whether the behaviour is likely to preserve the relationship (affiliative), or whether there is a risk that it could damage the relationship (challenging). An example of affiliative behaviour is helping, while whistle blowing represents a typical case for challenging behaviour. The second underlying dimension is called “promotive/prohibitive”. This continuum addresses whether the behaviour is intended to cause something to occur (promotive) or whether it is intended to prevent something from happening (prohibitive). Voice is an example of promotive behaviour, whereas prohibitive behaviour is exemplified by stewardship. To summarize, this article argues for a clear distinction between extra role behaviour and In Role Behaviour and proposes a typology of extra role behaviour based on two underlying dimensions.

In order to test the proposed typology of extra role behaviour, van Dyne and other scholars conducted two empirical studies. In both studies the authors focussed on helping and voice³⁶ behaviour as behavioural examples of the affiliative/challenging dimension. Before discussing these two studies in more detail, two preliminary remarks are worth mentioning. Firstly, both helping and voice are not extra role behaviour in every case. For example, nursing clearly includes helping as in-role behaviour. Secondly, helping and voice do not necessarily foster the effective functioning of the organization. Helping has positive impact in the case of highly interdependent tasks, whereas voice is beneficial in dynamic environments, which require continuous improvement.

In the first study, the Van Dyne and LePine conducted a survey study aiming to show that people do indeed distinguish between in-role behaviour, voice and helping behaviours, to determine the extent to which employees, peers, and supervisors have the same conceptualizations of in-role behaviour and extra role behaviour, and finally to assess the predicative validity of extra role behaviour (Van Dyne & LePine, 1998). The results support the convergent (i.e. factor analysis constantly reveals a three factor structure), discriminant (i.e. voice, helping and in-role behaviour can be distinguished empirically), and predicative (i.e. extra-role behaviour explains additional variance in individual job performance) validity of helping, voice, and in-role behaviour across rating source and over time.

In the second study, LePine and Van Dyne extended their nomological network by proposing a predictive model based on Motowidlo, Borman, and Schmit’s theory of individual differences in task and contextual performance (J.A. LePine & L. Van Dyne, 2001;

³⁶ Voice is defined as « making innovative suggestions for change and recommending modifications to standard procedures even when others disagree » (Van Dyne & LePine 1998, p. 109).

Motowidlo, Borman, & Schmitt, 1997). Specifically, the authors hypothesise that differences in personality relate more strongly to contextual performance than to task performance and that voice and helping behaviour have different personality predictors³⁷. To test these hypotheses, the authors conducted a laboratory study consisting of a computerized decision-making simulation. Correlation analyses reveal that general cognitive ability is related to task performance, but not to helping and voice. In addition, conscientiousness, extraversion, neuroticism and agreeableness have significant correlations with helping and voice, but not with task performance. Agreeableness is positively related to helping and negatively related to voice, indicating different personality predictors for helping and voice. To sum up, this study contributes empirical evidence for distinguishing in-role behaviour, voice and helping, highlights the importance of personality predictors, and supports the model proposed by Motowidlo et al.

In recent years, scholarly work rooted in Van Dyne et al.'s reconceptualization of OCB has evolved in several directions. Concerning helping as an important form of extra role behaviour, studies have contributed to an increased understanding of both antecedents and consequences. For example, a study by Le Pine and Van Dyne applies attribution theory to explain the effect of low performer characteristics on helping behaviour in work groups (J. A. Lepine & L. Van Dyne, 2001). According to this study, the personal characteristics, such as conscientiousness or cognitive ability, of low performers influence co-workers' attributions regarding causality, controllability and stability. These attributions have an impact on affect (e.g. empathy and anger) and cognitions (e.g. expectation of change), which in turn lead to different behavioural reactions (e.g. compensate, train, motivate or reject). In this model, for instance, a poorly performing employee who has low ability and little experience is likely to trigger attributions of an internal locus of causality, low controllability and low stability. These attributions cause empathy as an affective and expectation of change as a cognitive response. In the end, empathy and expectation of change most likely result in a specific form of helping behaviour, which consists of providing training to the low-performing employee. Another study, conducted by Ng and Van Dyne, employs multilevel analysis and expands existing literature by considering group-level antecedents and by introducing a configural conceptualization of helping³⁸ (Ng & Van Dyne, 2005). According to this study, cohesion and

³⁷ In this article, the authors refer to "contextual performance" rather than to ERB. While this choice of terminology allows a connection to be established with Motowidlo's theoretical work, it remains unclear how ERB as defined by Van Dyne relates to contextual performance.

³⁸ Up to now, most studies have measured group level helping by averaging individual helping scores. In addition to calculating the mean-level of helping, the present study, however, identifies both the member who

cooperative norms have a positive influence on helping behaviour, whereas task conflicts exert a negative influence. Furthermore, groups with large discrepancies in individual helping levels perform significantly weaker than groups with similar levels of individual helping³⁹.

Besides helping, voice has been the second focus of research. Important contributions come from both empirical and theoretical studies. For example, LePine and Van Dyne are interested in how person-centred variables (satisfaction and self-esteem), situational variables (group size and management style), and their interactions influence the occurrence of voice behaviour (J.A. LePine & Van Dyne, 1998). It turns out that satisfaction with group, group size and management style have a significant impact on voice. Furthermore, when it comes to making constructive suggestions, employees with low levels of self-esteem and those with high levels of satisfaction are more sensitive to situational factors. In a more recent paper, Van Dyne et al. extend the theoretical understanding of voice behaviour by differentiating three forms of voice and by contrasting them with employee silence⁴⁰ (Van Dyne, Ang, & Botero, 2003). According to the authors, both voice and silence are best conceptualized as separate, multidimensional constructs, with primary employee motives being the differing factor. For example, fear as a primary motive leads to defensive voice, while cooperation as a dominant motive results in pro-social voice.

Besides providing additional theoretical and empirical insights into helping and voice behaviour, recent research rooted in Van Dyne and Graham's reconceptualization of OCB has produced valuable contributions to topics neglected by mainstream OCB research. Elaborating on the link between political philosophy and OCB, Graham refers to liberalism as an intellectual source fostering external motivation to engage in OCB and to republicanism as a school of thought that facilitates internal motivation to perform OCB⁴¹ (Graham, 2000). In addition, Graham and Van Dyne argue that civic virtue encompasses an affiliative (i.e. keeping informed) and a change oriented (i.e. speaking up) component (Graham & Van Dyne, 2006). An investigation of social exchange processes in work groups reveals the importance of emotional investment as mediator between cognitions (i.e. cost/reward considerations) and

helps the least and the member who helps the most ; i.e. it takes into account the configuration of helping within the group.

³⁹ In this study, the group has to complete a conjunctive task. Hence, it remains to be seen if this result can be generalized to other types of tasks.

⁴⁰ This raises the question whether employee silence is a form of OCB. Van Dyne et al. propose that pro-social voice resembles sportsmanship. Referring to our working definition, we contend that silence (conceptualized as a purposeful, intended behaviour) can meet the qualifying criteria for OCB.

⁴¹ The term "good citizenship", which inspired Organ to label certain forms of extra-role behaviour as OCB, implies norm-based political behaviour and is clearly rooted in the tradition of republicanism.

group performance, refining social exchange explications in the context of OCB⁴² (Saavedra & Van Dyne, 1999). Finally, empirical studies focus on under-researched antecedents such as work status (Stamper & Van Dyne, 2001), psychological ownership⁴³ and feelings of possession⁴⁴ (Van Dyne & Pierce, 2004) or innovative work practices (Van Dyne, Kossek, & Lobel, 2007).

Discussion

The research introduced in this chapter has made several important contributions. Firstly, Van Dyne et al. clearly distinguish between formal job duties, roles and behaviour. In particular, the notion of “roles” allows for a more realistic picture of OCB, for it recognizes the importance of informal role prescriptions. Secondly, extra-role behaviour can be differentiated from in-role behaviour, but it varies along multiple, idiosyncratic dimensions. On the one hand, this finding supports a necessary condition for the existence of OCB. On the other hand, it shows that sub-categories of OCB (i.e. concrete behaviour like helping) can only be determined for a specific organizational situation. Thirdly, Van Dyne et al. propose a new categorization of OCB that includes challenging behaviours like voice. In a context characterized by fast-changing market conditions and an increased pressure to innovate, voice (in the sense of making constructive suggestions how to improve products and processes) is certainly an important, yet neglected, category of OCB. Fourthly, research in the tradition of Van Dyne and Graham is concerned with simultaneously studying antecedents like personality, attitudes, organizational context and their interactions. Compared with research conducted by Organ et al., which stresses the importance of attitudes, and with research performed by Motowidlo et al., which focuses on personality factors, this kind of empirical work provides fertile ground for the comparison of the relative importance of these antecedents.

However, the studies discussed in this chapter also have a major drawback. Relevant concepts and ideas change quite frequently, without explanations for why these changes occur. For instance, in the beginning, Van Dyne and Graham argued that the difficulty of distinguishing

⁴² This refinement of SET is especially important for gaining a deeper understanding of the motivational basis of OCB. Although SET is the dominant theoretical framework explaining why people engage in OCB, surprisingly little effort has been spent on studying exchange processes in detail in the context of OCB. For a more fine-grained analysis of this issue, cf. chapt. 3

⁴³ Psychological ownership occurs if an employee develops possessive feelings for the target (which can be material or immaterial). Psychological ownership is supposed to result in positive attitudes towards the possessed object, in an adapted self-concept (i.e. people view possessions as part of the extended self) and in an increased sense of responsibility for the object.

⁴⁴ This study is an example in favour of leaving trodden paths when investigating the antecedents of OCB. For it turns out that psychological ownership has greater predicative power than both satisfaction and commitment, two of the most heavily researched antecedents of OCB.

in Role Behaviour and extra role behaviour forces research to abolish these constructs altogether. Shortly afterwards, Van Dyne emphasised the necessity to differentiate between in Role Behaviour and extra role behaviour. Or, in earlier studies, authors use the term “extra-role behaviour”, which is defined in a particular way. Later on, however, researchers prefer “OCB” without making clear whether this term is used according to their own tradition (i.e. OCB and extra role behaviour are synonyms) or according to Organ’s or Motowidlo’s definition.

In the papers discussed above, Van Dyne et al. make no clear statement regarding the relationship between extra role behaviour and motivation; nor do they indicate whether extra role behaviour is internally or externally motivated. Yet, the juxtaposition of in-role and extra role behaviour suggests that extra-role behaviour is predominantly internally motivated.

Van Dyne et al. draw on several theories to explain why employees perform extra role behaviour. Most prominently they build their arguments on social exchange theory and the norm of reciprocity. The following two statements illustrate this notion:

“When individuals feel strongly committed to the organization, they reciprocate with high levels of involvement such as ... protecting company resources, and speaking up with suggestions for improvement” (Graham & Van Dyne 2006, p.7).

“According to this perspective (i.e. Social Exchange Theory), members in cohesive groups should be more willing to contribute positive behaviours such as OCB, because they are likely to possess high quality exchange relationships with each other” (Ng & Van Dyne 2005, p.514).

As an alternative theoretical explanation LePine and Van Dyne employ attribution theory:

“...we focus on helping behaviour that is targeted at enhancing group effectiveness triggered by the attributions individual peer make regarding a coworker’s low performance” (LePine & Van Dyne 2001, p. 67).

And finally, Van Dyne and Farmer apply role and identity theory to the realm of extra role behaviour:

“ The stronger the volunteer’s organization-specific role identity, the higher the helping” (Van Dyne & Farmer 2005, p.194).

While this diversity of potential motivational mechanisms brings in new perspectives, they also cause confusion because Van Dyne et al. don’t elucidate how the different explanations are related.

2.1.1.4 Working definition of OCB

Since the meaning of OCB has evolved over times and there is no definition that all (or even most) OCB scholars agree upon, it is important to define the term in the context of this thesis. For empirical, pragmatic, and conceptual reasons our working definition is influenced by Organ's original conceptualization of OCB. From an empirical point of view, research in the tradition of Organ has not only produced the most comprehensive, but also the most reliable empirical evidence. In particular, the distinction between OCBI (helping) and OCBO (generalized compliance) has proved to be very robust and serves as a useful guideline for the modelling of OCB in this thesis. Pragmatically, since OCB is the most dominant paradigm in the literature and since this dominance has been increasing in recent years, building on Organ's shoulders makes it easier to connect to the current scientific discourse⁴⁵. On a conceptual plane, although all three definitions have their flaws, Organ's definition is at the same time precise and flexible, allowing it to include a wide range of behaviours⁴⁶.

As a consequence, our working definition is rooted in Organ's work. Yet, it also differs in important respects. Most importantly, it does not include any statement regarding the motivational basis of OCB. Since this dissertation aims to answer the question what the motivational basis of OCB consist of and since it makes the claim that OCB should be modelled independently from its underlying motivation, the proposed working definition is useful to answer the research question.

“OCB is individual behaviour which is discretionary, which goes beyond formal and informal role prescriptions and which promotes the efficient and effective functioning of the organization” (working definition of OCB for this thesis)

This definition is concerned with behaviour (and not attitudes or motivation) and consists of three main components:

⁴⁵ In fact, scholars from both the traditions of contextual performance and extra-role behaviour are beginning to use the term OCB. And, Organ, who once argued to embrace the definition proposed for contextual performance (Organ 1997), has changed his mind and now favours his original conceptualization (Organ 2006).

⁴⁶ One problem with the definition of contextual performance is the difficulty of specifying the “broader organizational, social and psychological environment”. The definition of ERB is – among other things – problematic, because it includes not only observed but also intended behaviour. For a more detailed account on the strengths and weaknesses of the three different definitions, see chapter 2.1.1.4 and 2.1.1.5 a).

I) Our working definition deals with behaviour that goes beyond formal and informal role prescriptions⁴⁷. Formal role prescriptions are written regulations that constitute enforceable obligations⁴⁸. They are typically found in labour contracts or job descriptions. Informal role prescriptions are claims articulated by supervisors or co-workers, and non-compliance with these claims entails some sort of punishment⁴⁹. This means that the claims have to be made explicit and supervisors or co-workers have to be willing to take the costs of punishing⁵⁰. The focus on supervisors and co-workers precludes both external expectations from other social groups and internal expectations based on internalized norms. For example, someone may help a co-worker because in her culture helping is considered to be a valuable behaviour or because she has adopted prosocial values. The inclusion of informal role prescriptions in our working definition marks a difference to Organ's definition, which is justified by two considerations. Firstly, in times characterized by fast-changing markets and the increased importance of knowledge based work, supervisors would be overstrained to write down all the work behaviours required of an employee. In addition, the pervasiveness of teams in today's work organizations entails a growing relevance of group norms, which hardly ever exist in written form. Secondly, non-compliance with informal role prescriptions may provoke punishing behaviour that is as painful as consequences resulting from violating formal role prescriptions⁵¹.

II) Although roles may be changing, role borders may be blurring and different people may have different ideas about what a role consists of, we maintain the notions that people can distinguish In Role Behaviour from OCB and that OCB involves an element of discretion, i.e.

⁴⁷ Referring formal and informal role prescriptions to the concepts of in-role and extra-role behaviour, we note that both formal and informal role prescriptions (as defined in this section) are elements of in-role behaviour.

⁴⁸ This means that a neutral third party can act as judge and impose sanctions on the rule-breaker.

⁴⁹ The term "claim" is preferred to "expectation" in order to stress the fact that non-compliance is likely to evoke sanctions.

⁵⁰ To be precise, this statement has to be clarified in two respects. Firstly, it may not be obvious, what "articulated" means exactly. At least, it should be clear for an employee which behaviours are meant by the informal role prescriptions and that violations entail consequences. Secondly, due to disturbed communication or biased interpretations, perceptions of informal role prescriptions may differ between an employee, his supervisor and his team-mates. Hence, the evaluation of behaviour by supervisors or peers may be blurred because of differing role concepts.

⁵¹ Another caveat: even if specific OCB-behaviours are neither formally nor informally required, the very fact of engaging in OCB can be endorsed and valued; thereby making it informally required to perform OCB without specifying specific behavioural content or the frequency of its occurrence. I.e. a person who never performs OCB may well violate informal norms, although it cannot be contracted in advance which specific OCB behaviours have to be performed, nor can these specific behaviours be enforced by supervisor's orders.

people deliberately choose to engage in these kinds of behaviours⁵². Quite a precise description of the term “discretionary” can be found in Organ:

“by discretionary, we mean that the behaviour is not an enforceable requirement of the role or job description, that is, the clearly specifiable terms of the employment contract with the organization; the behaviour is rather a matter of personal choice, such that its omission is not generally understood as punishable” (Organ 1988, p.4).

We agree with this account, with one slight difference: discretionary behaviour is behaviour with goes beyond both formal (i.e. “the clearly specifiable terms of the employment contract with the organization”) *and* informal (i.e. claims by supervisors and co-workers that entail significant punishment in case of non-compliance) role prescriptions. Since discretionary behaviour shares many features with voluntary behaviour, insights regarding OCB can be gained by looking at research dealing with voluntary behaviour.

III) Finally, we focus our attention on those behaviours that promote the efficient and effective functioning of the organization. Imposing this precondition restricts the behaviours considered to be OCB. Particularly, we exclude those behaviours that benefit the individual, but not the organization⁵³. Why do we make this restriction? Because it allows the formation of meaningful behavioural categories, which are likely to have specific antecedents and consequences⁵⁴. And why do we focus on behaviours that benefit the organization and not on those that have positive effects for the individual or for the whole society? Since from a managerial point of view, we are primarily interested in behaviours that contribute to the organization’s success. In fact, the popularity of OCB in both academia and practice is largely due to the premise that fostering OCB will result in enhanced organizational performance⁵⁵. While most scholars agree that OCB should have positive consequences for organizations, differences appear when determining what these consequences consist of and how they can be explained. For example, consider a situation in which helping behaviour satisfies the requirements of our working definition. Does helping result in improved quality or in

⁵² It is important to note that behaviour which is extra-role (according to our definition) is not necessarily discretionary. For example, in a situation, in which helping is not considered to be part of formal and informal role prescriptions, an employee may help because he feels an inner constraint to do so. For our further analysis we rule out these cases, resulting in the assumption that ERB implies that the behaviour is discretionary.

⁵³ This does not mean that we rule out any behaviour directed at individuals. For instance, OCBI is behaviour which is aimed at individuals and which at the same time has positive consequences for the organization.

⁵⁴ An analogy may clarify this point. In social psychology the distinction between prosocial and aggressive behaviour is primarily based on the different effects of these behaviours. Those behaviours that harm another person are considered to be aggressive and those that augment the well-being of another person are termed “prosocial behaviours”.

⁵⁵ Because the claim to have positive consequences is essential for both theory and practice, we discuss theoretical explanations and empirical evidence related to this topic in some detail in chapter 2.1.3.

enhanced financial key figures? Are the consequences of helping positive because they foster knowledge transfer, because they free up managerial sources for more productive purposes or because they contribute to the formation of social capital⁵⁶?

Having clarified what our working definition of OCB is about, it is equally important to stress what it does *not* include, because prominent research in the area of OCB has repeatedly included these features in the definition of OCB. Specifically, the working definition locks out three common features:

I) The working definition does not specify what kinds of behaviours are considered to be elements of OCB. Although behaviours like helping, conscientiousness or voice are more likely to be OCB than others, it is simply not possible to say that they always meet the requirements for being OCB. Why is this so? Because in order to determine whether a specific behaviour is OCB, we have to take into account situational contingencies. For example, for a nurse, helping behaviour may be expected and therefore in-role behaviour, whereas for a Wall Street trader, helping may not be part of formal or informal role prescriptions. Hence, the idiosyncratic characteristics of specific behaviours preclude them from becoming elements of a generic definition. Indeed, the equation of OCB with specific behaviour has contributed to the complexity and incommensurability of conceptual and empirical studies alike and has sparked lively debates concerning the boundary between in role behaviour and extra role behaviour. For example, conscientiousness (i.e. following rules even if no one is watching) is considered to be in-role behaviour by some researcher and OCB by others⁵⁷.

II) We drop the requirement that OCB is not rewarded. Although this requirement is an explicit element of Organ's definition, we prefer to omit it out of two reasons. Firstly, there is ample empirical evidence that OCB is sometimes rewarded. For instance, several studies reveal that supervisors take OCB into account when evaluating and promoting employees⁵⁸. Secondly, because OCB is extra-role and not expected, it occurs as a surprise and is salient.

⁵⁶ Social capital "are resources embedded in a social structure that are accessed and/ or mobilized in purposive actions" (Lin, 2001, p.29)

⁵⁷ We are not saying that we should stop determine specific OCB behaviours. In fact, we have to specify sub-constructs, because OCB is far too broad a category and because it is a latent construct that needs substantiation in order to measure it. However, we can only define which behaviours meet the definitional criteria for a specific situation.

⁵⁸ For a detailed account of this strand of literature, see chapt. 2.3.2

That may be exactly the reason to reward it⁵⁹. Furthermore, the traditional motivational explanation, which is based on social exchange theory, can be interpreted as involving rewards. An employee who reciprocates received inducements by engaging in OCB is most likely to expect these inducements in the future. Thus, these future inducements can be interpreted as expected rewards. While the non-reward requirement is not part of our working definition, it can serve as a heuristic criterion for deciding whether a specific behaviour is in role behaviour or OCB. In role behaviour is more likely to be rewarded, especially if the firm uses pay-for-performance systems. And finally, the non-reward requirement may lead to the conclusion that OCB is only internally motivated⁶⁰.

III) Finally, although there are reasons for assuming that OCB is motivated more internally than in-role behaviour, the working definition contains no statements concerning the motivational basis of OCB. Both theoretical and empirical reasons support this omission. From a theoretical point of view, it is important to separate behaviour and motivation. OCB refers to specific behaviours that can be observed by a third party⁶¹. The motivation driving OCB, however, is a latent construct, i.e. it cannot be observed directly by supervisors and co-workers. Rather, we have to measure motivation independently. Accordingly, it is not possible to infer the underlying motivation by observing OCB. Employees showing voice behaviour, for instance, may be motivated by genuine care for the well-being of the organization or by the desire to impress their supervisors. In order to build an adequate model representing this idea, we model reasons to act (i.e. the motivation) as independent latent variables that are supposed to have a causal influence on OCB. Considering empirical evidence, research in the last decade has shown that OCB can also be externally motivated. For example, research conducted by Bolino et al. has show that some employees engage in OCB because they want to leave a favourable impression on others (Bolino, 1999).

⁵⁹ At this point, this is a proposition, made by the author, which needs to be scrutinized empirically.

⁶⁰ Several authors indeed rely on this conclusion. Referring to the same logic, the discovery that OCB can be rewarded leads to the realization that OCB is –at least in part – externally motivated (for this line of reasoning, c.f. Bolino 1999)

⁶¹ In order to categorize behaviour as OCB, the third party has to know the formal and informal role prescriptions as well as the situational contingencies determining which behaviour contributes to the efficient and effective functioning of the organization.

2.1.1.5 Synopsis

OCB – extra role behaviour – contextual performance: a critical comparison

Although they cover similar behavioural phenomena, the three strands of literature that have shaped the development of OCB differ in several respects. These differences become clearer if we consider the origin of each strand. OCB is influenced by the Human Relation School, especially by a restatement of the satisfaction-causes-performance hypothesis. Contextual performance is rooted in research on personnel selection and is preoccupied with re-analysing the personality-causes-performance hypothesis. Lastly, extra role behaviour draws heavily on political philosophy, in particular on various concepts of citizenship.

When it comes to defining the construct, the three strands differ in the way that they include the notions of discretionary behaviour, role boundaries and positive consequences for the organization. While the definitions of both OCB and extra role behaviour make use of discretionary behaviour, role boundaries and positive consequences, contextual performance only uses positive consequences. In addition, OCB and extra role behaviour vary in the conceptualization of positive consequences. For OCB, only behaviours that actually have positive consequences are included in the definition. In contrast, extra-role behaviour also allows for behaviours that are intended to have positive consequences.

In line with the divergent origins, the focus of research and the main contributions to the development of the construct also differ. OCB primarily studies the relationships between attitudes (especially fairness and leadership behaviour) and OCB, contextual performance is interested in the linkages between personality traits (e.g. the big-five model) and both in-role performance and contextual performance, and extra role behaviour is concerned with antecedents and consequences of voice and helping as well as with studying behaviour-context interactions and multi-level issues.

Consequently, OCB is credited – besides having launched the discussion – with establishing the two-factor structure, with accumulating impressive empirical evidence regarding attitudinal antecedents and with providing an explanation of the motivational basis of the construct by referring to Social Exchange Theory. Contextual performance proposes a performance-management model that integrates in-role performance and contextual performance and re-establishes personality traits as important predictors of OCB. Finally, extra role behaviour adds voice as a form of extra-role behaviour, proposes a typology based on the affiliative or challenging nature of behaviour and stresses the importance of studying extra role behaviour in the context of nested organizational structures.

Deciding which strand was most influential in framing the current OCB construct is a task difficult to accomplish. Yet taking a bird's-eye view and with the advantage of hindsight, we tentatively notice that OCB sensu Organ has exerted the greatest influence, with the contextual performance and extra role behaviour being responsible for major inputs and elaborations. For example, research in the tradition of contextual performance has provided two important inputs. First, the notion that contextual performance is an integral part of the performance domain highlights the relevance of OCB as a keystone of performance management. Thus, from a managerial perspective, successful management of organizational performance involves the effective steering of OCB. Second, the emphasis on personality factors becomes relevant in the discussion of functional approaches to the motivational basis of OCB in chapter 2.2.1.3.

The following table includes both a short version of the considerations mentioned above and additional distinctive features.

	OCB	contextual performance	extra role behaviour
origin	Human relation school; especially restating the satisfaction-causes-performance proposition	Research in personal psychology related to assessment and selection; especially restating the personality-causes-performance proposition	Theories of political philosophy; especially concepts of citizenship (Plato and Aristotle/ liberalism and republicanism)
definition	"OCB is behaviour that is discretionary, not rewarded by the formal reward system and that in the aggregate promotes the effective functioning of the Organization"	"contextual performance are performance behaviours (that) support the broader organizational, social and psychological environment in which the technical core must function"	"extra role behaviour is behaviour which benefits the organization and/ or is intended to benefit the organization, which is discretionary and which goes beyond existing role expectations"

sub-categories	<ul style="list-style-type: none"> - helping behaviour - conscientiousness - sportsmanship - courtesy - civic virtue 	<ul style="list-style-type: none"> - interpersonal facilitation - job dedication 	<ul style="list-style-type: none"> - affiliative behaviour (e.g. helping) - challenging behaviour (e.g. civic virtue)
focus of research	Studying the relationships between attitudes (e.g. fairness and leadership) and OCB	Studying the relationships between personality factors (e.g. agreeableness), IP and contextual performance	<ul style="list-style-type: none"> - Studying antecedents and consequences of voice and helping behaviour - Studying behaviour-context interactions and multi-level issues - Theory-driven Reconceptualization of OCB (e.g. informed by political philosophy/ attribution theory)
Important scholars	D. Organ P. Podsakoff	P. Motowidlo Van Scooter	L. Van Dyne Graham
main contribution	<ul style="list-style-type: none"> - raising awareness for the importance of “going the extra mile” - development and empirical testing of the two-factor structure: OCBI (helping) and OCBO (conscientiousness) - empirical evidence regarding diverse antecedents and consequences - application of Social Exchange Theory to OCB 	<ul style="list-style-type: none"> - evidence for enlarging the performance domain - evidence regarding the relevance of personality traits in predicting contextual performance 	<ul style="list-style-type: none"> - enlarging the performance domain by introducing challenging behaviour (voice) - extending theoretical understanding by referring to established theories (political philosophy, attribution and role theory...) - raising awareness for multi-level and personality – context interaction issues

Table 3: comparison of OCB *sensu* Organ, contextual performance *sensu* Motowidlo and extra role behaviour *sensu* Van Dyne and Graham

After a general comparison of OCB, contextual performance and extra-role behaviour, we now restrict our attention to similarities and differences in statements related to motivation. In accord with the criteria mentioned at the beginning of chapter 2.1.1, we focus on the relation between motivation and behaviour, on internal and external motivation and on theoretical explanations.

When it comes to the relation between motivation and behaviour in defining the constructs, the findings are quite divergent. In Organ's conceptualization, motivation is separated from behaviour. In research on contextual performance, by contrast, motivation is considered to be an integral part of the construct's definition. And the literature on extra role behaviour makes no clear statement whether motivation should be modelled independently from behaviour or not.

While scholars disagree about the relation between observable behaviour and latent motivation, they largely agree on the prevalence of internal motivation in driving OCB/ contextual performance/ extra role behaviour. In Organ's view, although OCB could be motivated externally, the definitional requirements that it is discretionary and not rewarded make it more likely to be internally motivated. Contextual Performance, being concerned with the influence of the big five personality traits on work behaviour, does not take different motives into account. Hence, it focuses on internal motivation. The same can be said about research on extra role behaviour, which places great emphasis on internally motivated convenantal relationships.

As with the the relation between motivation and behaviour, theoretical explanations of why employees engage in OCB/contextual performance, extra role behaviour differ. Organ basis his argument on social exchange theory and argues that employees perform OCB because they reciprocate favourable treatment by the employer. According to scholars in the tradition of contextual performance, people engage in contextual performance because they have personal traits that predispose them to engage in prosocial behaviour. Finally, research on extra role behaviour offers no single theortical explanation. In this view, employees perform extra-role behaviour, because they reciprocate favourable treatment (social exchange explanation), because the act according to a role (role and identity theory explanation) or because they make attributions regarding the locus of control of low performers (attribution theory explanation).

A summary of the differences and similarities between OCB, contextual performance and extra role behaviour with respect to motivation is presented in the table below.

	OCB	contextual performance	extra role behaviour
Relation behaviour - motivation	conceptually separated	no separation	no clear statements
Internal vs. external motives	predominantly internal	internal	internal
underlying motivation – theoretical explanation	Employees perform OCB, because they reciprocate favourable treatment by the employer (Social Exchange Theory)	Employees perform contextual performance, because they have personal traits that predispose them to engage in prosocial behaviour	no single explanation; employees perform extra-role behaviour, because they - reciprocate favourable treatment (Social Exchange Theory) - act according to a role (role and identity theory) - make attributions regarding locus of control of low performers (attribution theory)

Table 4: Differences and similarities between OCB, contextual performance and extra role behaviour with respect to motivation

To sum up, this chapter tracks the development of the OCB construct and proposes a working definition. Three major strands have shaped the development of OCB: Organ's original conceptualization, contextual performance and extra-role behaviour informed by political philosophy. The proposed working definition is based on Organ's initial definition and requires OCB to be behaviour which is discretionary, not part of informal and formal role prescriptions and which has positive consequences on the organizational level. Hence, our working definition allows OCB to be rewarded and does not include any statements about specific behavioural manifestations and the motivational basis of OCB.

Finally, the analysis of the literature reveals that OCB is supposed to be internally motivated, that there is often confusion between OCB as observable behaviour and motivation as latent construct and that several theories for why people engage in OCB are offered with social exchange theory being the most frequent theoretical explanation

Based on these introductory explanations on the construct, the following chapters cover the state of the art concerning antecedents and consequences. While the chapter “antecedents” displays –among other things - the existing evidence related to the motivational basis of OCB, the chapter “consequences” scrutinizes the claim that OCB has positive consequences for the organization.

2.1.2 Antecedents

Since Organ introduced OCB as a distinct construct in 1983 (Smith et al., 1983), the main focus of research has been to identify and test potential antecedents of OCB. The reasons for this tendency are twofold. On a theoretical level, Organ's original interest was to explain the counterintuitive finding that employee satisfaction influences in-role performance only to a small degree. In widening the employee performance domain to include extra-role behaviours, Organ et al. were able to show that employee satisfaction has a much greater impact on extra-role behaviours than on in-role behaviour (Smith et al., 1983). Scrutinizing these findings, other researchers proposed and tested different antecedents of extra-role behaviour, which was labelled OCB in the subsequent discussion. On a practical level, managers who are interested in fostering OCB need to know how they can influence these behaviours. Knowing the effect sizes of different antecedents allows managers to facilitate OCB in a systematic way.

Considered from a motivational point of view, studying antecedents of OCB provides hints to answer the question: "what motivates OCB"? For instance, if meta-analytic evidence shows that perceived fairness is highly correlated to OCB, it is likely that internalized norms of reciprocity play an important role in motivating OCB.

Because of the multiplicity of studies analyzing OCB's antecedents, this chapter does not discuss single studies. Rather, it focuses on four meta-analyses which summarize the effect sizes of the most frequently studied antecedents. The aim is to present and discuss the empirical evidence in a compact form and to highlight gaps and biases in the literature.

Included in the following section are the four meta-analyses that have received the greatest attention in the literature. For each of these meta-analyses, background information is provided followed by remarks on the method and the presentation of the main results. A general discussion can be found at the end of this chapter.

One caveat should be mentioned right at the beginning. Meta-analyses report correlations as an indicator of how closely antecedents and criteria are related. However, empirical correlations alone are never sufficient conditions to establish causality⁶². This general epistemological finding is highly relevant in studying OCB's antecedents, because in some cases we can postulate plausible hypotheses involving reverse causality. For example, a high level of OCB could reasonably cause high levels of satisfaction.

⁶² A more detailed discussion of necessary and sufficient criteria to establish causality can be found in chapter 3.1.3.

2.1.2.1 Meta-analysis of Organ and Ryan (1995)

I) Background

Shortly after introducing the concept of OCB in the early eighties, scholars postulated that OCB and task performance may be influenced by different antecedents⁶³. Organ, for example, argues that OCB is “less constrained by ability and work process technology” than task performance (D.W. Organ & Ryan, 1995, p. 775). Therefore, ability and features of the work process technology are supposed to show higher correlations with task performance than with OCB. Whereas most researchers readily acknowledge the existence of different antecedents for task performance and OCB, there is serious disagreement about which antecedents are most important in predicting OCB. For Motowidlo et al. (Motowidlo & Van Scotter, 1994)(Borman and Motowidlo 1993) personality factors are the most prominent predictors of contextual performance⁶⁴. As a practical consequence, a firm should invest in personnel selection systems in order to filter out employees who show high occurrences of critical personality traits. In contrast, Organ et. al argue that job attitudes play a greater role in influencing OCB than personality factors (Organ and Ryan, 1995). Thus, these authors stress the importance of HRM programs that monitor, maintain and improve job attitudes. Because the concept of job attitudes is very broad, researchers empirically investigated different forms of attitudes. Starting with satisfaction, these researchers soon began to include fairness⁶⁵, commitment and leader behaviour into their studies. Based on theoretical reasoning and empirical findings in other domains, some scholars also consider the correlations between attitudes and OCB not to be the same for different subsamples. For example, gender, work setting or self vs. other rating have been proposed to moderate these relationships.

By aggregating empirical studies Organ and Ryan’s meta-analysis was intended to address these questions. The goal was to determine whether the existing empirical database supports the existence of different antecedents of OCB, whether attitudes are more important predictors

⁶³ The term “task performance” refers to behaviours that are required by formal, legally enforceable role prescriptions (e.g. labour contract, job description). The term “OCB”, by contrast, denotes behaviours that go beyond formal role prescriptions. For both task performance and OCB, it is assumed that they promote the efficient and effective functioning of the organization.

⁶⁴ As discussed in chapter 2.1.1, the behavioural domain of OCB and contextual performance overlap to a high degree. The influence of personality traits can be direct or indirect (e.g. job attitudes are influenced to a high degree by personality).

⁶⁵ Some authors consider perceived fairness to be a more precise measure of satisfaction. Since only the cognitive component of satisfaction is measured in most studies and since the content of this cognitive component are mainly justice considerations, these authors conclude that perceived fairness correlates to a higher degree with OCB than satisfaction (for this line of reasoning, see for example (D. W. Organ & Konovsky, 1989) or (Moorman 1991)).

than personality factors, which job attitudes are most important, and which factors moderate the relationships between antecedents and OCB.

II) Method

After conducting an extensive literature search, two independent raters coded the studies. Only studies with aggregate measures of OCB and correlations representing data from at least four independent studies were included in the meta-analysis. For each bivariate correlation of interest, the authors in the first step computed sample-sized weighted raw correlations. In the second step, they external for possible artefacts such as sample error or unreliability. Finally, they conducted different tests in order to detect interaction effects. In order investigate the influence of common method bias the authors were specifically interested whether studies based on self-ratings of OCB differ significantly from those studies employing other-ratings of OCB.

III) Results

Because altruism and generalized compliance are those antecedents which have, thus far, been analysed most intensely, the meta-analysis reports findings for altruism and generalized compliance separately⁶⁶. Important results for altruism are listed in the table below. Only correlations exceeding a critical value ($r > 0.2$) are included.

1	2	3	4	5
Satisfaction	6'746 (28)	0.282	32.5	0.255 – 0.307
Fairness	3'313 (20)	0.238	61.9	0.196 -0.281
Commitment	2'648 (11)	0.247	73.1	0.198 – 0.296
Leader supportiveness	3'062 (8)	0.318	9.7	0.281 – 0.356
Conscientiousness	2'172 (11)	0.217	8.2	0.166 – 0.268

Key to column headings:

1 antecedents of altruism

2 sum of all samples in the analysis (no of studies in the analysis)

3 sample weighted mean estimate of correlations

⁶⁶ The term “altruism” often causes confusion because in OCB research it is defined differently than in other areas of social sciences. According to Organ, altruism refers to behaviour that is directly and intentionally aimed at helping a specific person in face to face situations (Smith et al., 1983). These behaviours, however, can be purely egoistic, i.e. the helper doesn't have to care about the well-being of the person receiving the help. For instance, an employee may help a co-worker because she wants to impress her supervisor in order to get a promotion.

4 percentage of variance due to artefact

5 95 % confidence interval around mean estimate of p

Table 5: Meta-Analysis of Correlates of Altruism; adapted from Organ and Ryan (1995, p. 787)

The effect sizes range from 0.22 to 0.32, with leader supportiveness having the greatest impact on Altruism. Satisfaction, Fairness and Commitment also seem to exert a considerable influence. Considering personality factors, only conscientiousness shows significant correlations with Altruism. Overall, attitudinal measures explain more of the variance in altruism than dispositional variables⁶⁷.

Even after controlling for unreliability and sampling error variance, the correlations for both satisfaction and leader supportiveness show high levels of variance. Hence, the relationships between satisfaction/leadership supportiveness and altruism may be moderated. Drawing on additional calculations, the authors consider self vs. other rating to be the most likely moderator⁶⁸. This means that correlations may be biased due to common method bias. Interestingly, self-ratings of OCB not only lead to the inflation of the mean correlation itself, but also to the increase of the variation mean correlations.

Furthermore, neither tenure nor gender has a direct or indirect (moderated) influence on altruism.

The main results for generalized compliance are listed in the table below.

1	2	3	4	5
Satisfaction	5'975 (25)	0.275	43.2	0.245 – 0.305
Fairness	2'690 (15)	0.268	39.2	0.225 – 0.311
Commitment	2'671 (10)	0.316	20.6	0.267 – 0.365
Leader supportiveness	3'062 (8)	0.348	11.7	0.309 – 0.386
Conscientiousness	1'818 (10)	0.302	26	0.243 – 0.361

Key to column headings:

⁶⁷ Attitudes are latent constructs representing an employee's affective and cognitive evaluation of a perceived part of the organizational environment. For instance, OCB researchers may be interested in how employees view the procedural fairness of their firm's promotion system. In OCB research, attitudes are supposed to be context specific. By contrast, dispositions (or "traits") are enduring patterns of thinking about the environment that are relatively stable over time and across situations, but differ between individuals. Conscientiousness as a disposition, for example, refers to an enduring tendency to act dutifully and orderly.

⁶⁸ This finding raises important methodological questions. For example, researchers have to evaluate which method of measurement produces more reliable and valid results. In order to address this problem, both self and other ratings are employed in the empirical part of this thesis. For a more detailed discussion of self vs. other rating, see chapter 3.1.5.2.

- 1 antecedents of generalized compliance
- 2 sum of all samples in the analysis (no of studies in the analysis)
- 3 sample weighted mean estimate of correlations
- 4 percentage of variance due to artefact
- 5 95 % confidence interval around mean estimate of p

Table 6: Meta-Analysis of Correlates of Generalized Compliance; adapted from Organ and Ryan (1995, p. 790)

The overall pattern of results for generalized compliance is similar to those for altruism. Leader supportiveness turns out to be the most important antecedent. Fairness, Satisfaction and Commitment also have correlations with generalized compliance greater than 0.2. Finally, the self vs. other rating is most likely to moderate some of these correlations.

However, two differences show up. First, commitment has a greater impact on generalized compliance than on altruism. Second, conscientiousness as a personality trait is more strongly correlated with generalized compliance than with altruism.

2.1.2.1 Meta-analysis of Podsakoff, P.M. et al. (1996)

I) Background

The authors' goal was to contribute to a discussion surrounding Kerr and Jermier's substitute for leadership model (Philip M. Podsakoff, MacKenzie, & Bommer, 1996). This model postulates that there are a variety of situational variables that can substitute the effects of leaders' behaviour. Examples of leadership substitutes include task feedback, organizational formalization or indifference to organizational rewards. Despite having intuitive appeal, empirical support for the substitutes model is mixed. Testing the substitutes model usually involves checking whether the substitute variables moderate relationships between leader behaviour and subordinate criterion variables.

By aggregating empirical results for the relationships between leaders' behaviours, leadership substitutes, employee attitudes and performance, the authors aim to gain a better understanding of the relative importance of leadership substitutes. Since the performance criterion includes both in role performance and OCB, this meta-analysis gives valuable information concerning OCB's antecedents.

Two additional points about this study are worth mentioning. Firstly, many results have been included in a later meta-analysis by Podsakoff and co- authors (Podsakoff et al. 2000). This

later meta-analysis is the most important in the field of OCB to date. However, the methodological explanations in this later study are rather marginal and understanding the first study methodologically is a prerequisite for a critical examination of the second one. Secondly, the authors not only aggregated correlations but also conducted multiple regressions and structural equations analyses. This allowed the estimation of aggregate effect sizes in complex systems simultaneously.

II) Method

After conducting an extensive literature search, the authors included 22 studies representing 36 independent subsamples. The average N per relationship is 4080. To analyze the data, Podsakoff et al. employ a three-step strategy. First, they estimated population correlations and their variances by weighting each of the observed correlations by its sample size and then calculating the variance of these correlations across samples. In addition, each correlation was corrected for attenuation with the reliabilities reported for each sample⁶⁹. In the second step the variance in the criterion variables (i.e. in role performance and OCB) which is attributable to potential antecedents (i.e. leadership behaviour and leadership substitutes) was determined. This was achieved by first estimating a full multiple regression model and then sequentially omitting groups of antecedents. The final step is an analysis of the covariance structure of the meta-analytically derived correlation estimates. This method takes into account all intercorrelations simultaneously, which results in more adequate estimates for effect sizes.

III) Results

The table below lists the correlations, which are corrected for sampling error and attenuation, between antecedents and both in-role performance and OCB. In line with the empirical analysis in this thesis, only altruism and conscientiousness as representative forms of OCBI and OCBO are included. The entries are the standardized correlations and the corresponding standard errors. In order to focus on the highest correlations as indicators for strongest effect sizes, the table only contains correlations exceeding the value of 0.15⁷⁰.

⁶⁹ However, the authors do not take into account biases that might be caused by common method bias.

⁷⁰ All listed correlations are significant at the 0.01 level.

antecedent	In-role Performance	Altruism	Conscientiousness
1) Supportive Leader	.26 (.02)	.26 (.07)	.26 (.09)
2) Contingent Reward	.27 (.8)	.26 (.05)	.26 (.00)
3) Noncontingent Punishment	-.25 (.10)	-.25 (.10)	- .26 (.09)
4) Indifference to Rewards	-.13 (.13)	-.17 (.00)	- .24 (.11)
5) Task Feedback	.16 (.11)	.18 (.00)	.21 (.00)
6) Routine Task	-.14 (.07)	-.25(.13)	-.23 (.14)
7) Internally Satisfying Task	.18 (.07)	.27 (.05)	.22 (.00)
8) Cohesive Group	.09 (.09)	.19 (.08)	.12 (00)
9) General Satisfaction	.27 (.03)	.31 (.03)	.28 (.07)
10) Commitment	.14 (.00)	.22 (.05)	.22 (.09)

Note: antecedents 1)-3) are Leader Behavior; antecedents 4-8) are Substitutes for Leadership and antecedents 8-10) are additional criterion variables.

Table 7: Summary of Meta-Analysis Results for Correlations of Leader Behavior, Substitutes for Leadership and Performance Criteria; adapted from Podsakoff et al. 1996, p. 384.

The effect sizes for leader behaviours are roughly the same for in-role performance, altruism and conscientiousness. However, the signs and therefore the directions of influence are different. Whereas a Supportive Leader and Contingent Rewards seem to have a positive influence on both forms of OCB, Noncontingent Punishment has a negative impact. The correlations between substitutes for leadership and OCB are also both negative and positive. Indifference to Rewards and Routine Tasks both have a negative relationship with OCB. At any rate, task design seems to exert a great influence on OCB. Besides the negative impact of a routine task, an internally satisfying task and a task which provides clear and immediate feedback are both positively correlated with OCB. The Cohesive Group variable seems to foster OCB as well, albeit to a lower extent. Finally, Satisfaction and Commitment may both enhance OCB, a result which is consistent with Organ and Ryan's meta-analysis (Organ and Ryan 1995).

Not surprisingly, Altruism and Conscientiousness are highly intercorrelated ($r = 0.65$). Less evident is the strong relationship between In-role Performance and OCB ($r = 0.62$ for Altruism and $r = 0.64$ for Conscientiousness).

The second step of the meta-analysis consists of a series of multiple regressions, which yields a partitioning of variance in the performance criteria. According to this analysis, substitutes for leader behaviours account for a greater amount of variance in OCB than leaders' behaviours. Furthermore, the total amount of variance explained by leaders' behaviours and substitutes for leadership is greater for OCB than for in-role performance (15 % for in-role performance, 24 % for altruism, 22 % for conscientiousness). Therefore, leaders' behaviours and substitutes for leadership are important antecedents for OCB and explain roughly one quarter of the variance in OCB.

In the final step, structural equation modelling is employed simultaneously to estimate both the effects of leaders' behaviours and leadership substitutes on employee performance. Since leaders' behaviours and substitutes variables are intercorrelated with each other and with the criterion variable, the effect sizes resulting from Structural Equation Modelling correspond more precisely to the postulated model. The table below lists the most important effect sizes for in role performance, altruism and conscientiousness.

antecedent	In-role performance	Altruism	Conscientiousness
1) Contingent Reward	0.25	n.s.	n.s.
2) Noncontingent Reward	n.s.	.13	.14
3) Noncontingent Punishment	n.s.	n.s.	-.18
4) Task Feedback	n.s.	.15	.23
5) Routine Task	-.09	-.23	-.24
7) Internally Satisfying Task	n.s.	.12	n.s.
8) Cohesive Group	n.s.	.10	n.s.
9) Rewards outside Leader's Control	n.s.	-.12	-.15
10) Spatial Distance	-.09	-.14	-.07

Note: antecedents 1)-3) are Leader Behavior; antecedents 4-10) are Substitutes for Leadership

Table 6: Summary of Meta-Analysis Results for Correlations of Leader Behavior, Substitutes for Leadership and Performance Criteria; adapted from Podsakoff et al. 1996, p. 384.

Three points about these results are worth mentioning. Firstly, the patterns of effect sizes differ clearly between in-role performance and both forms of OCB. Thus, on many occasions measures to foster OCB are not the same as measures to enhance in-role performance. Secondly, task and organisational characteristics play an important role in influencing OCB.

Therefore, attempts to improve these characteristics are likely to have a positive impact on OCB. Thirdly, the results from Structural Equation Modelling analysis differ from the aggregated, single correlations. For example, the supportive leader construct is correlated positively with all three criterion variables (cf. table 6). In the Structural Equation Modelling analysis, however, no significant effect sizes between supportive leader and employee performance exist. Including several antecedents simultaneously may therefore yield different effect sizes than those proposed on the basis of single correlations. Consequently, including relevant context factors may result in more adequate estimates of effect sizes.

2.1.2.3 Meta-analysis of Podsakoff, P.M. et al. (2000)

I) Background

This paper remains the most comprehensive and most cited meta-analysis in the field of OCB research to date. Based on previous meta-analyses (Organ & Ryan 1995, Podsakoff et al. 1996) and additional analyses conducted for this paper, Podsakoff et al. tried here to summarize the empirical evidence concerning the antecedents of OCB (P. M. Podsakoff et al., 2000).

II) Method

The authors reported mean correlations between antecedents and OCB's subconstructs. These correlations were corrected for sampling error and measurement reliability⁷¹.

III) Results

According to Podsakoff et al., the existing empirical evidence can be clustered in four major categories of antecedents: individual (or employee) characteristics, task characteristics, organizational characteristics and leadership behaviours. For each of these categories, the main results for Altruism, Conscientiousness and Generalized Compliance are reported in the following sections⁷².

⁷¹ Common method bias was only taken into account when analysing the consequences of OCB on performance evaluations. In this case, studies employing self-reporting of OCB explain a higher portion of variance in performance evaluations than studies that use different sources to measure OCB. However, no such considerations are included when analysing antecedents.

⁷² To avoid "data overload", only correlations that are significant ($p = 0.01$) and exceeding 0.15 are included in the tables. Furthermore, the tables depict just those subcategories of OCB which are related to the empirical analyses of this thesis.

individual (or employee) characteristics

Antecedent	Altruism	Conscientiousness	Generalized Compliance
Satisfaction	.31	.28	.28
Fairness	.24	n.d.	.27
Organizational Commitment	.22	.22	.32
Trust in Leader	.24	.26	n.d.
Conscientiousness	.22	n.d.	.30
Indifference to Rewards	-.17	-.24	n.d.

Note: entries are standardized correlations; n.d: no data

Table 9: Summary of Meta-Analysis Results for Correlations of Individual Characteristics and OCB; adapted from Podsakoff et al. 2000, p. 527.

When it comes to individual characteristics, four points are worth noting. Firstly, several forms of employee attitudes (i.e. satisfaction, fairness, organizational commitment and trust in leader) are highly correlated with OCB⁷³. Referring to Organ & Ryan, the authors propose a “general moral factor” which leads to a high propensity to perform OCB (Organ & Ryan 1995). Secondly, this meta-analysis sheds light on the marginal importance of dispositional variables. After controlling for common method variance, only Conscientiousness⁷⁴ is significantly correlated with OCB. Thirdly, demographic variables (e.g. gender or tenure) are not related to OCB. Finally, Indifference to Rewards is negatively correlated with OCB. This finding points to the importance of organizational rewards for OCB, a topic which will be discussed more deeply at the end of this section.

Task /organizational characteristics

Describing the effects of task and organizational characteristics on OCB, the authors refer to Podsakoff et al.’s meta-analysis (1996). According to this study, Task Feedback, Internally Satisfying Task, and Cohesive Group are positively related to OCB, whereas Task Routinisation and Rewards outside the Leader’s Control exert a negative influence on OCB.

⁷³ The effects of fairness attitudes on OCB are examined in more detail in chapter 3.3.

⁷⁴ The terminology is somewhat confusing. “Conscientiousness” is used to describe either behaviour (as a form of OCB) or a dispositional variable (i.e. a personal trait).

Leadership behaviours

Antecedent	Altruism	Conscientiousness	Generalized Compliance
Transformational Leadership	.26	.24	n.d.
Contingent Reward Behaviour	.26	.26	n.d.
Noncontingent Punishment	-.25	-.26	n.d.
Supportive Leader Behaviours	.26	.25	n.d.

Note: entries are standardized correlations; n.d: no data

Table 10: Summary of Meta-Analysis Results for Correlations of Leadership Behaviours and OCB; adapted from Podsakoff et al. 2000, p. 528

The results listed in table 8 indicate that behaviours that are characteristic for specific leadership theories are significantly correlated with OCB. Transformational leadership behaviours (e.g. intellectual stimulation or articulating a vision) all have positive relationships with OCB. For transactional leadership behaviours, the evidence is mixed. While Contingent Reward Behaviour is positively related to OCB, Noncontingent Punishment Behaviour shows a negative relationship with OCB. Finally, Supportive Leader Behaviours as an element of the Path-Goal Theory of Leadership seems to have a positive effect on OCB.

To sum up, job attitudes (e.g. fairness), task variables (e.g. internally satisfying task) and various types of leader behaviour are more strongly related to OCB than other potential antecedents.

2.1.2.4 Meta-analysis of Le Pine, J.A. et al (2002)

I) Background

The focus of LePine et al.'s study was to determine whether Organ's dimensions of OCB are distinct or not (J. A. LePine, Erez, & Johnson, 2002). To accomplish this goal, the authors first examined the relationships among these dimensions. In the second step, the correlations between OCB's dimensions and antecedents were scrutinized. In order to be considered as

distinct constructs, the dimensions should not be highly related and the same antecedent was expected to show a different pattern of correlations across the dimensions. Since this chapter deals primarily with OCB's antecedents, the following discussion is restricted to the second part of LePine et al.'s meta-analysis.

II) Method

The authors aggregated the results from 113 empirical studies. They included only those antecedents which were related to each of the five dimensions in at least three studies. The resulting antecedents comprised Satisfaction, Organizational Commitment, Fairness, Leader Support and Conscientiousness as a personal trait⁷⁵.

III) Results

The following table depicts the corrected correlations between these antecedents and OCB⁷⁶.

Antecedent	r (95% CI)	N
Satisfaction	.24 (.22 -.26)	7'100
Commitment	.20 (.17 -.24)	5'133
Fairness	.23 (.20 -.26)	1'975
Leader Support	.32 (.27 -.37)	4'349
Conscientiousness	.23 (.32 -.44)	848

r: population correlations, corrected for unreliability,

CI: confidential interval around the population correlation

N: total sample size

Table 11: Relationship between OCB and antecedents, adapted from LePine et al. (2002), p. 59

The results indicate that attitudes (i.e. Satisfaction, Commitment and Fairness) have substantial positive correlations with OCB. The same can be said of leader behaviour (Leader Support) and Conscientiousness as a personal trait. In addition, this meta-analysis clearly reflects the emphasis of OCB research up to this point: most studies have been concerned with the influence of Satisfaction, Fairness, Commitment or Leader Behaviour on OCB. Finally, the existence of significant between-studies variance refers to possible interaction effects.

⁷⁵ Issues related with common method bias are not discussed in this meta-analysis.

⁷⁶ In this table, OCB is conceptualized as a latent construct including all five dimensions proposed by Organ. The relationships between the antecedents and each of these dimensions are not explicitly reported. Rather, the authors perform linear regression analyses with the grand mean correlations as dependent variables and OCB's dimensions as independent variables.

2.1.2.5 General discussion of chapter “antecedents”

Comparing the results of the four meta-analyses discussed above, it appears that satisfaction, fairness, task variables and leadership behaviour are more strongly related to OCB than other antecedents. On the one hand, these results can be considered quite robust because they are derived from hundreds of studies encompassing thousands of individuals in various organizational settings. On the other hand there are several caveats limiting the generalizability of the results.

1) All four meta-analyses explicitly refer to specific theoretical questions or research programs⁷⁷. Hence, they are biased in the selection of potential antecedents. Organ (Organ 1995), for example, is interested primarily in the relationship between employee satisfaction and OCB as well as in the relative importance of attitudes and personality traits⁷⁸. Podsakoff et al. (Podsakoff et al. 1996) focus on Kerr and Jermier’s substitutes for leadership, resulting in a set of potential antecedents which lie in the realm of leadership behaviour, and the substitutes proposed by Kerr and Jermier (Kerr and Jermier 1978). In the second meta-analysis Podsakoff et al. (Podsakoff et al. 2000) broaden the range of antecedents. Nevertheless, they confine their analysis to four main categories which are heavily based on the two meta-analyses introduced above⁷⁹. Finally, the meta-analysis conducted by LePine et al. (LePine et al. 2002) deals with the question whether OCB can be regarded as a latent construct⁸⁰. In order to check the similarity of the relationship between antecedents and OCB’s subdimensions, the authors concentrate on some of the most heavily researched antecedents⁸¹.

2) Based on the meta-analyses, the evidence supports the notion that attributional factors play a much greater role in predicting OCB than dispositional factors. However, the relation between personality and OCB is possibly stronger than the reported correlations suggest. On a conceptual level, it is feasible that differences in personality traits influence differences in

⁷⁷ The bias is further aggravated by the fact that most analyses rely on the operationalization of OCB proposed by Organ.

⁷⁸ The generalization of the results for satisfaction is further hampered because they only refer to non-professional and non-managerial employees.

⁷⁹ For example, the reported correlations for task and organizational characteristics in the meta-analysis of 2000 were simply adopted from the meta-analysis of 1996.

⁸⁰ The ontological status of OCB as a latent or aggregate construct will be scrutinized in more depth in chapter 3.1.4.1.

⁸¹ If an equivalent relationship between antecedents and OCB’s subdimensions can be shown for the most common antecedents, then the authors can make strong claim for the thesis that OCB is a latent construct. Chapter 3.1.5.1 will resume LePine et al. (2002) for a discussion whether OCB is best modelled as a latent or as an aggregate construct.

attitudes. Hence, personality factors could contribute indirectly to OCB (for this line of reasoning; see Organ & Ryan (1995) and Soon et al. (2005)). On an empirical level, Borman et al. present an updated version of the Organ and Ryan (1995) meta-analysis (Borman et al. 2001). This new meta-analysis, which includes 20 more studies, finds slightly higher correlations than those reported by Organ⁸². For example, Organ and Ryan (1995) find a mean correlation between conscientiousness and generalized compliance of $r = 0.21$ whereas Borman et al. report the corresponding mean correlation as $r = 0.24$.

3) By focusing on attitudes and personality, research on antecedents has neglected both the relevance of colleagues' behaviour and the level of analysis⁸³. A study by Bommer et al. illustrates both points (Bommer, Miles, & Grover, 2003). The authors find a significant effect of group level OCB on individual level OCB. Thus, broadening the domain of potential antecedents to include colleagues' behaviour and extending the analysis to include different levels may contribute considerably to the understanding of OCB's causes⁸⁴.

4) The correlations between antecedents and OCB may vary according to the rating source. Some studies rely on supervisors to rate their subordinates' OCB, others use self-rating and still others employ peer rating⁸⁵. In line with this reasoning, Organ and Ryan (1995) argue that the rating source is likely to moderate the antecedent-OCB relationship. However, none of the existing meta-analyses explicitly models and estimates this moderator effect⁸⁶.

5) With the exception of Podsakoff (1996), all the meta-analyses report bivariate correlations between antecedents and OCB without explicitly taking into account possible influences due to coexisting antecedents. The simultaneous estimation of correlation coefficients in a system consisting of several antecedents and OCB can yield different outcomes than the estimation of the single bivariate correlation coefficient⁸⁷.

For example, the bivariate correlation between non-contingent punishment and altruism in Podsakoff et al.'s meta-analysis is negative and significant ($r = -0.25$). However, when non-

⁸² Since Borman et al.'s meta-analysis is restricted to personality factors, it contains no information concerning the importance of attitude factors.

⁸³ OCB scholars have investigated the influence of behaviour on OCB but the examined behaviours were those of supervisors (leadership behaviour) and not those of colleagues.

⁸⁴ For a discussion of multilevel issues in the context of OCB see chapter 3.1.5.3.

⁸⁵ The problem of an adequate rating source is also highly relevant for the present thesis. Therefore, a more thorough discussion of rating source will follow in chapter 3.1.5.2.

⁸⁶ Organ and Ryan (1995) postulate such a moderation effect, but they not provide explicit estimations.

⁸⁷ In the Podsakoff paper, the simultaneous effect of several antecedents on OCB is estimated using multiple regression and structural equation modelling (SEM). A more detailed discussion of SEM for estimating the effects of several antecedents simultaneously can be found in chapter 3.1.4.

contingent punishment is part of a set of antecedents consisting of leadership behaviours and substitutes for leadership, the corresponding correlation becomes insignificant. This finding is of great relevance, because in practice an employee is usually exposed to different antecedents simultaneously.

6) For some proposed antecedent-OCB dyads, discriminant validity is of crucial concern. For example, there may be considerable semantic overlap between commitment and generalized compliance or between fairness and courtesy. A lack of discriminant validity could result in correlation coefficients which are overestimated. However, none of the meta-analyses presented provides information referring to discriminant validity.

7) When analyzing the empirical evidence dealing with antecedents of OCB, it is striking that the motivational basis of OCB is hardly ever examined⁸⁸. The meta-analyses discussed in the previous sections only give sparse and indirect hints about potential underlying motives and motivational processes. In Organ and Ryan's meta-analysis (Organ & Ryan 1995), satisfaction could be vaguely interpreted as an indicator for internal motivation. Podsakoff et al. briefly mention the influence of reward contingencies on OCB (Podsakoff et al. 2000, p. 533). When employees believe their leaders control rewards and when those leaders administer rewards contingent upon performance, OCB increases. This finding may result from internalized (internal) reciprocity norms. Alternatively, monetary (external) motivation may also explain this pattern of behaviour. However, none of these motivational explanations are considered by the authors. They rather refer to cognitive conceptions of the performance term.

Therefore, the discussion of the meta-analyses reveals that both empirical investigations of the motivational basis of OCB and theoretical explanations referring to this motivational basis are quite uncommon in the literature.

⁸⁸ Some studies do in fact deal explicitly with the motivational basis of OCB. However, these studies are quite sparse and will be discussed in chapter 2.2.1.

To summarize, the empirical evidence concerning the antecedents of OCB refers to several factors (mainly fairness, leadership behaviour and task characteristics), which are likely to foster OCB. However, a couple of caveats restrict the plain transfer of these results into managerial practice.

Considering the motivational basis of OCB, existing meta-analyses hint at a lack of studies that explicitly investigate motives and motivational processes. Rather, the vast majority of empirical studies reports correlations between attitudinal/ dispositional antecedents and OCB. Hence, when it comes to explicitly modelling motives and motivational processes, there is a gap in the literature and – as a consequence – the “black motivational box” continues to exist.

2.1.3 Consequences

In OCB research it is commonly assumed that these behaviours have positive effects not only on an individual but also on a group and organizational level. From a management perspective the future of OCB will depend in large part on the verification of this fundamental assumption. As noted by Organ and Konovsky (1989), “OCB derives its practical importance from the premise that it represents contributions that do not inhere in formal role obligations. The presumption is that many of these contributions, aggregated over time and person, enhance organizational effectiveness” (p.157). However, relatively few studies have analyzed whether and why such positive effects of OCB on organizational effectiveness exist.

As indicated at the beginning of chapter 2.1 the goal of this section is to answer two questions:

- 1) What are the positive consequences of OCB?
- 2) How do the consequences influence the motivational basis of OCB?

In order to address these questions, the chapter proceeds in three steps. Chapter 2.1.3.1 discusses prominent theoretical explanations. Empirical evidence for the effects of OCB is analysed in chapter 2.1.3.2. Chapter 2.1.3.3. closes with a general discussion and implications for the motivational basis of OCB.

2.1.3.1 Theoretical Explanations

In the literature, it is generally assumed that OCB enhances organizational effectiveness. However, only a few scholars have tried to explain this linkage theoretically. This chapter introduces and discusses three of the most prominent theoretical developments in this area. Firstly, Podsakoff & McKenzie (1997) have probably had the greatest impact on the subsequent discussion. Secondly, Bolino et al. (2002) link OCB with social network and social capital theory. Finally, Niehoff (2005) explicitly discusses the performance criterion and stresses the importance of moderation and mediating variables.

a) Podsakoff P.M.; MacKenzie, S.B.; (1997):

Podsakoff and Mac Kenzie have developed one of the most influential theoretical frameworks explaining the impact of OCB on Organizational Performance (P. M. Podsakoff & MacKenzie, 1997). Referring to the earlier works of Smith and Organ, who argued that OCB may enhance performance by lubricating the social machinery of the organization (Organ

1988, Smith et al. 1983), they propose several ways in which this may happen⁸⁹. Because some of the proposed reasons for the positive effects of OCB on performance are overlapping the following list is not exhaustive but summarizes the key arguments⁹⁰.

- 1) *OCB enhances coworker or managerial productivity.* For example, coworker productivity can be enhanced through helping behaviour. If employees help new coworkers and those having problems they support them to become more productive employees. Over time, helping behaviour can help spread best practices throughout the organization. According to the authors, managerial productivity may be increased in two ways. Firstly, employees showing civic virtue may give valuable suggestions for improving unit effectiveness. Secondly, conflicts among coworkers can be reduced due to courtesy. This prevents managers from falling into a pattern of crisis management.
- 2) *OCB frees resources up for more productive purposes.* For example, conscientious employees require less supervision, thus reducing the need for formal and informal managerial control. Furthermore, helping among employees allows managers to spend more time on tasks such as strategic planning instead of training employees and dealing with work-related problems.
- 3) *OCB serves as an effective means of coordinating activities between team members and across work groups.* Voluntarily attending and actively participating in work meetings (civic virtue) can help the coordination of effort among team members. Preventing problems from occurring by informing coworkers early (courtesy) may reduce coordination cost.
- 4) *OCB enhances the organization's ability to attract and retain the best people.* For example helping and sportsmanship may foster group cohesiveness and team spirit which may make the organization a more attractive place to work.
- 5) *OCB enhances the stability of organizational performance.* Conscientious employees are more likely to perform at a high level even if nobody is supervising them. Coworkers who help each other can reduce the variability of output by taking on the tasks of those who are absent or have heavy workloads.

⁸⁹ In a more recent overview article Podsakoff et al. discuss the effects of OCB on Organizational Performance as well (Podsakoff et al. 2000). However, their arguments and line of reasoning are the same as in the paper discussed in this section.

⁹⁰ The discussion section below deals in greater detail with the problem of overlapping reasons. The list presented in this chapter differs in two ways from the original list in Podsakoff & McKenzie (1997). Firstly, "OCB may enhance coworker productivity" and "OCB may enhance manager productivity" are combined into one category. Secondly, "OCB may reduce the need to devote scarce resources to purely maintenance functions" is dropped because it is included in other potential reasons.

- 6) *OCB enhances an organization's ability to adapt to environmental changes.* Employees who actively participate in meetings (civic virtue) or help each other (helping) may contribute to the dissemination of information across an organization, thus enhancing its responsiveness. By demonstrating a willingness to take on new responsibilities and learn new skills (sportsmanship) the resistance to organizational change can be reduced.

Discussion

Podsakoff and McKenzie develop a plausible list of potential reasons why OCB might influence work group and/or Organizational Performance. This list is based not only on the author's considerations but also on previous work in the management literature⁹¹. Compared with the very general notion that OCB may enhance performance by "lubricating" the social machinery of the organization⁹², the reasons proposed by Podsakoff and McKenzie are quite differentiated. They include mechanisms ranging from reducing coordination costs, fostering the dissemination of information and best practices, and attracting good people to adapting to organizational change. Furthermore, the authors take into account several subdimensions of OCB which allows us, for example, to postulate different effects of helping and conscientiousness on organizational effectiveness.

However, the proposed list of potential reasons has several drawbacks. Firstly, although it is partially grounded in the work of other managerial scholars it is speculative in nature. The potential reasons are not explicitly derived from theory, nor do the authors link the existing empirical evidence to these reasons. Secondly, the meaning of the dependent variable remains unclear. The authors speak of "organizational effectiveness" and "organizational performance" without giving a precise definition. Thirdly – as noted above – the proposed reasons for the positive effects of OCB on performance overlap to a high degree. For example the reason "OCB may reduce the need to devote scarce resources to purely maintenance functions" overlaps to a great extent with the reasons "OCB enhances managerial productivity" and "OCB may free resources for more productive purposes". Fourthly, the potential reasons are not embedded in a broader organizational context. For example the reasons "OCB may enhance managerial productivity", "OCB may serve as an effective means of coordinating activities between team members and across work groups" and "OCB may

⁹¹ Among others the authors refer to the works of Borman & Motowidlo (1993), Organ (1988) and Smith et al. (1983).

⁹² This idea was first developed by Organ (1988) and Smith et al. (1983).

free resources up for more productive purposes” could be discussed with reference to the coordination function of organizations. The same argument applies to “OCB may enhance coworker productivity” and “OCB may enhance an organization’s ability to adapt to environmental changes”, which are linked to the topic of knowledge management in organizations. Finally, the potential reasons “OCB may enhance the organization’s ability to attract and retain the best people” and “OCB may enhance the stability of organizational performance” are clearly a topic of managing motivation in organizations.

On the one hand the theoretical framework developed by Podsakoff & McKenzie proposes reasonable causes for a positive impact of OCB on organizational performance. On the other hand, however, the framework clearly needs further theoretical elaboration as well as more empirical examination.

b) Bolino M.C. et al. (2002):

Bolino et al. propose a theoretical explanation for the effects of OCB on organizational performance by referring to theories of social capital and competitive advantage (Bolino et al., 2002). Their main thesis is that “OCBs help create and maintain social capital within firms, which in turn, produces higher levels of organizational performance” (Bolino et al. 2002, p. 508). In other words, social capital is supposed to mediate the relationship between OCB and organizational performance. The corresponding theoretical model is depicted below.

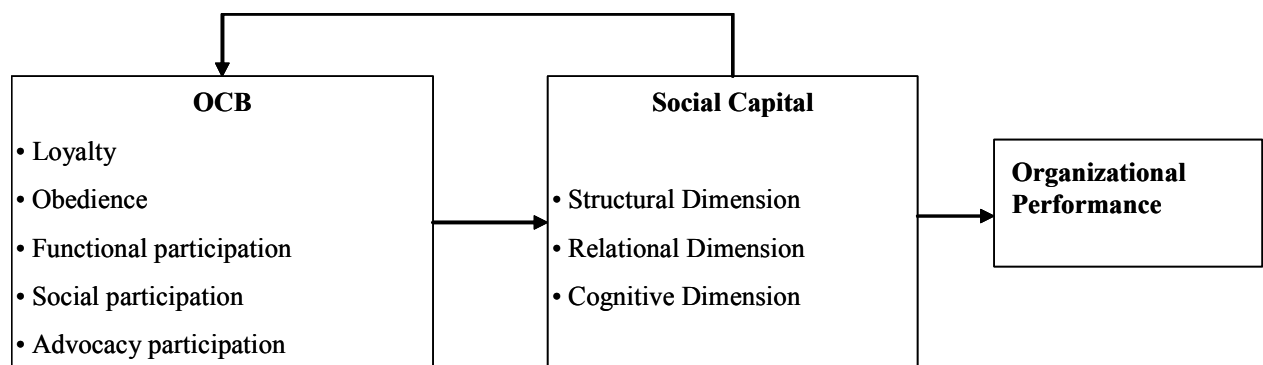


Figure 5: The Relationships among OCB, Social Capital and Organizational Performance; Adapted from Bolino et al. (2002) p. 512.

After introducing OCB and social capital the authors motivate both the influences of OCB on social capital and of social capital on organizational performance.

In defining OCB, Bolino et al. refer to the work of Graham, who develops a conceptualization of OCB grounded in political philosophy (Graham, 2000), cf. Chapt. 2.1.1.4). Based on this theoretical perspective the authors introduce five subdimensions of OCB. Obedience describes employees' willingness to accept the organization's rules. Loyalty refers to the willingness of employees to subordinate their personal interests for the benefit of the organization and to defend the organization. Social participation means all forms of non-mandatory social activities in organizations. Advocacy participation describes the willingness to make suggestions and to bring up new ideas. Finally, functional participation refers to work-related behaviour that exceeds required work standards (e.g. working extra hours or staying informed about new developments).

For the definition of social capital, Bolino et al. use a conceptualization introduced by Nahapiet and Goshal (Nahapiet and Goshal 1998). According to these authors, social capital encompasses three dimensions. The first dimension is structural social capital and includes aspects like the number of connections between members of the organization (network ties), the overall configuration of these ties (network configuration), and the possibility to transfer different kind of relationships within a network (network appropriability). Therefore, structural social capital is concerned with the quantity of relationships within organizations. The second dimension is called relational social capital and refers to the affective component of social capital. A high level of relational social capital is characterized by trust, shared norms and a sense of mutual identification. Thus, relational social capital deals with the quality of relationships within organizations. The third dimension, cognitive social capital, is the extent to which employees share a common perspective or understanding. A high degree of cognitive social capital is achieved if a shared language exists and employees share narratives.

The theoretical model developed by Bolino et al. postulates a mediating role of social capital and therefore involves two mechanisms. The first mechanism refers to the impact of OCB on the build-up of social capital, whereas the second mechanism deals with the influence of social capital on organizational performance. Since the primary contribution of this paper lies in the exemplification of the ways in which OCB enhances social capital, the following remarks only deal with the first mechanism⁹³.

⁹³ The positive impact of social capital on organizational performance (second mechanism) is explained with the help of the resource based view of the firm. According to this view, organizations gain competitive advantage by developing resources that are valuable, rare, inimitable and nonsubstitutable (Barney 1991). In accordance with

For each subdimension of OCB, Bolino et al. describe how it might contribute to the build-up of social capital. For example, a potential influence of social participation on social capital is explained in three ways. Firstly, social participation behaviour is likely to result in the formation of new relationships and these new relationships change the constitution of existing networks. In addition, the new relationships may be useful in different contexts augmenting network appropriability. Therefore, social participation may contribute to the formation of structural social capital. Secondly, social participation may also intensify existing relationships. Since the frequency of mutual contact is positively related to liking and identification, social participation probably has a positive influence on relational social capital. Thirdly, in attending nonrequired events employees exchange organizational myths and stories. This eventually contributes to the development of a shared language and shared narratives. Thus, social participation may enhance cognitive social capital.

Discussion

The theoretical framework developed by Bolino et al. has several advantages. Firstly, it discusses the influence of OCB on organizational performance on a sound theoretical and empirical basis. Both the relevant constructs and the proposed mechanisms are derived from established and empirically tested theories. OCB is defined with reference to political philosophy, social capital with reference to social network theories and organizational performance with reference to the resource-based view of the firm. The influence of OCB on social capital is explained by means of theories and research findings developed in network theories and social psychology. Network theories, along with findings from the realm of strategic management, also play a crucial role in motivating the link between social capital and organizational performance. Secondly, the authors develop clear, plausible, testable propositions. For example, proposition 1 states “social participation will enhance structural social capital through the formation of network ties, the configuration of these ties and the appropriability of the network” (Bolino et al. 2002, p. 513). All variables mentioned in this proposition can be observed, measured and may be used to test hypotheses. Thirdly, the model presented is multilevel. Most research in the area of organizational behaviour uses models with variables measured at the same organizational level. In contrast, the present model describes how individual-level behaviours (OCB) contribute to group level phenomenon (social capital), which, in turn, is related to an organization-level outcome

(organizational performance). Fourthly, Bolino et al. also consider reverse causality. While it is intuitively plausible that OCB enhances social capital, the opposite case, with OCB as a consequence rather than an antecedent of OCB, could also be true. Evidence about the relevance of these two explanations can only be gained through empirical investigation. Fifthly, the authors include the cost of OCB and social capital. There may be cases in which the costs of OCB and social capital outweigh the benefits. For example, the formation of new network ties takes time and effort that distract from performing other tasks.

Besides these advantages, the paper also contains some critical points. The definition of OCB is based on Graham et al.'s work (Graham 2000). However, this conceptualization of OCB is rarely used in the literature⁹⁴. As a consequence, the results from empirical studies using the present theoretical framework will hardly be comparable to other studies. What is even more troublesome is the absence of helping as a subdimension of OCB. As indicated in other studies (cf. chapt. 2.1.2), helping behaviour is considered one of the most important factors affecting organizational performance.

Concerning the dependent variable, organizational performance, it remains unclear what performance means precisely, and how it can be measured. Social capital is supposed to be a source of sustainable competitive advantage because it is valuable, difficult to imitate and hard to substitute. Yet, how this competitive advantage finally results in improved organizational performance and in corresponding operating figures is left unexplained.

Using social capital theory, the article introduces an alternative explanation for the effect of OCB on organizational performance. However, the reference to other possible explanations is hardly discussed. For example, some potential reasons proposed by Podsakoff (cf. Chapt. 2.1.3) can be explained by means of social capital, whereas other potential reasons are qualitatively distinct.

Finally, the article makes some assumptions concerning the motivational basis of OCB. As indicated in several text passages, OCB is supposed to be internally motivated. For example, in the section describing social capital the authors state "... it is reasonable to believe that social capital may result from the willingness of employees to exceed their formal job requirements in order to help each other, to subordinate their individual interests for the good of the organization..." (Bolino et al. p.507f). Another example stems from the discussion of loyalty: "Employees demonstrate loyalty when they are willing to sacrifice their own interests for the good of the company" (Bolino et al. p.514f). As demonstrated in other parts of this thesis (cf. chapter 2.2), this claim is highly problematic.

⁹⁴ Most studies use either the typology proposed by Organ (5 subdimensions of OCB) or by Podsakoff (7 subdimensions).

c) Niehoff, B.P. (2005):

Based on previous empirical and theoretical research, Niehoff develops a theoretical model of the influence of OCB on Organizational Effectiveness. Besides shedding light on potential reasons for organizational consequences of OCB, the aim of the paper is to provide guidelines for future research. The author proposes the following model.

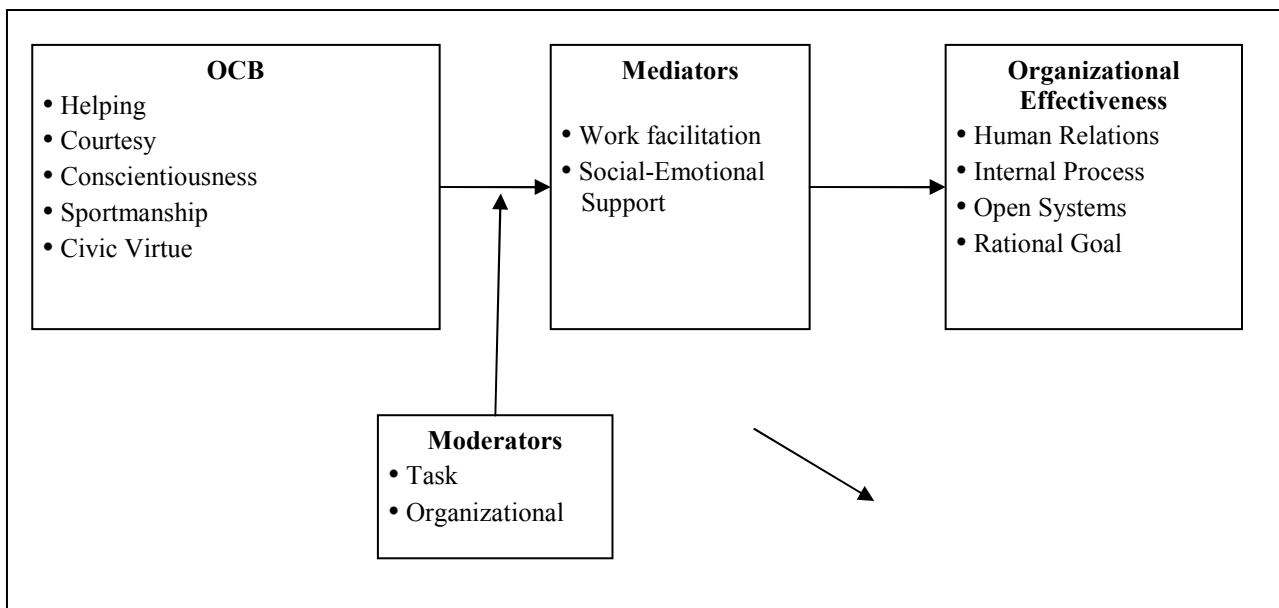


Figure 6: Theoretical Model of OCB and Organizational Effectiveness; Adapted from Niehoff (2005) p. 394.

According to Niehoff, the impact of OCB on organizational effectiveness is not straightforward but rather influenced by a variety of interaction terms. Possible mediating variables include work facilitation, i.e. the capacity of OCB to save time and solve work related problems⁹⁵, and social-emotional support, which is supposed to enhance group motivation. Variables on both the task and the organizational level can act as moderators. For example, if the level of ambiguity embedded in a job is high, OCBs such as helping and courtesy could help in the structuring of the job.

Since most studies analyzing the linkage between OCB and organizational effectiveness make use of such common measures as sales or profit without discussing the issue of performance, the author first introduces a theoretical framework for understanding organizational effectiveness. Basically, organizations are supposed to consist of different stakeholders (e.g.

⁹⁵ Referring to Bolino et al., the author considers social capital to be an aspect of work facilitation (Bolino et al. 2002). However, social capital may also contribute to social emotional support (e.g. through the formation of friendship networks in the workplace).

Employees, investors, and owners). Each of these stakeholders has a different perspective of the organization and, hence, a different model for assessing its effectiveness. In order to systemize the different views of stakeholders, Niehoff refers to the “competing values model” proposed by Quinn and Rohrbaugh (Quinn & Rohrbaugh 1983). According to this model, stakeholders base their judgement of organizational effectiveness on two dimensions: 1) a focus on control versus flexibility and 2) a focus on internal versus external factors. Combining these two dimensions yields four quadrants representing four different stakeholder views. The main characteristics of these views are depicted below.

	Internal Focus	External Focus
Flexibility Focus	<i>Human Relations Quadrant</i> <ul style="list-style-type: none"> • Focus: needs of employees • Stakeholder: employee • Means: employee centred HR 	<i>Open Systems Quadrant</i> <ul style="list-style-type: none"> • Focus: Growth • Stakeholder: investor • Means: Seeking new markets
Control Focus	<i>Internal Process Quadrant</i> <ul style="list-style-type: none"> • Focus: operations • Stakeholder: management • Means: performance monitoring 	<i>Rational Goal Quadrant</i> <ul style="list-style-type: none"> • Focus: Goal fulfilment • Stakeholder: owner; top management • Means: Measurable financial oucoms

Figure 7: Competing Values model; Adapted from Niehoff (2005) p. 392.

A distinction between these different forms of effectiveness is supposed to result in a better empirical and theoretical understanding of the OCB – performance linkage. From an empirical perspective, studies report different results for the proposed quadrants. For example, the positive effects of OCB in the human relation quadrant are well established. For the rational goal quadrant, however, only a few studies, which show mixed results, exist⁹⁶. From a theoretical perspective, different mechanisms may be responsible for the positive effects of OCB. Conscientiousness, for example, is supposed to be more important in the internal process quadrant than in the human relation quadrant.

⁹⁶ For a detailed discussion of the empirical evidence see chapt 2.1.3.2.

Discussion

The framework proposed by Niehoff contributes in two ways to the theoretical discussion concerning the influence of OCB on organizational effectiveness. Firstly, it emphasizes the fact that organizational performance is not a clear-cut construct. Rather, it is dependent on the views of different stakeholders. The competing value model allows future researchers to deal in a systematic and sophisticated way with these different views. For example, they can propose separate mechanisms for each quadrant, and they obtain hints about possible ways to operationalize the performance criterium. Secondly, the author suggests how to deal with the inherent complexities and confounding factors of the OCB-effectiveness linkage. By introducing plausible interaction terms, the effects of OCB can be studied in a much more realistic way. Furthermore, some of Podsakoff's potential reasons and Bolino's social capital approach can be integrated in the model by including corresponding mediators or moderators. However, Niehoff's model is also problematic in two respects. To start with, there is no explicit theoretical foundation of the interaction terms. For example, it remains vague why work facilitation and social emotional support are part of the model while other possible mediating variables are not. Furthermore, a precise definition for some important constructs is missing. One example is the potential moderators at the organizational level, which are presented as a fuzzy blend of structural, procedural and cultural factors.

2.1.3.2 Empirical Evidence

Many more empirical studies deal with the antecedents of OCB than with its consequences. Hence, it is not surprising that up to now no meta-analysis referring to the consequences of OCB exists. An overview of the empirical evidence can be found in Podsakoff et al. (2000) and in Organ and al. (2006). Both classify the existing studies into two groups. The first group consists of studies dealing with consequences on an individual level. In contrast, the second group encompasses studies which focus on consequences on a group or organizational level. The following review of the consequences of OCB adopts the same classification because it allows the elaboration of some important points. Presenting the consequences on an individual level leads to discussion about the range of the OCB construct and the motivational basis of OCB. The evidence concerning the consequences on a group/ organizational level directly affects an integral part of the definition of OCB, i.e. the postulate that OCB is a set of behaviours that "... in the aggregate promote the effective functioning of the organization" (Organ 1983, p. 653).

Consequences of OCB on the group/ organizational level

Most studies dealing with the consequences of OCB on a group or organizational level are concerned with the influence of OCB on organizational effectiveness⁹⁷. This section discusses some of the most cited studies in this area. Podsakoff & McKenzie were the first to analyze the effects of OCB on organizational success using a large-scale sample (Podsakoff & MacKenzie, 1994). In their famous paper mill study, Podsakoff et al. related organizational performance to objective measures of quantity and quality (P. M. Podsakoff, Ahearne, & MacKenzie, 1997). Walz & Niehoff broadened the range of performance criteria to include accounting figures and feedback from customers (Walz & Niehoff, 2000). Koys was the first to employ a longitudinal design to establish the direction of causality (Koys, 2001). Finally, both the studies of Bell & Mengue and of Bienstock et al. included service quality as an important aspect of organizational performance (Bell & Mengue, 2002; Bienstock, 2003)⁹⁸.

Podsakoff, P.M. & McKenzie, S.B. (1994):

Background and Propositions

As indicated by previous research, OCB seems to influence managers' evaluations of performance. This kind of evaluation behaviour seems appropriate if OCB really contributes to organizational success. In order to check this assumption, the authors conducted two studies. The first study investigated the impact of OCB on managers' evaluations. The second study analyzed the effects of OCB on organizational success. Since this chapter deals with effects on organizational effectiveness, only the second study will be discussed in the section below.

Method

The sample consisted of 987 full-time agents working for an insurance company in the US. Most agents were male and average tenure was about five years.

Unit managers evaluated their subordinate's OCB by filling in a questionnaire. Referring to Organ's conceptual work, the authors included three subdimensions of OCB – helping behaviour, sportsmanship and civic virtue. Additional interviews with company representatives confirmed that the chosen subdimensions of OCB really are discretionary

⁹⁷ Some studies label the dependent variable "organizational effectiveness" while others prefer the term "organizational performance".

⁹⁸ The studies of Karambayya (1990), McKenzie et al. (1996), Dunlop & Lee (2004) and Ahearne et al. (2004) are not included because these provide few additional arguments for the subsequent discussion.

behaviours and that these behaviours are not a part of the formal reward system. To analyze the aggregate (unit level) effects of agents' OCB on unit performance, managers' assessments of their agents' OCB were aggregated by averaging OCB across agents at unit level. Data regarding the overall performance of each unit were obtained from company records. Using these performance data, a unit performance index was calculated.

To examine the effects of OCB on unit performance, the authors used structural equation modelling. After testing the measurement model, the structural part of the model was estimated and evaluated.

Results

The table below summarizes the results for the structural part of the model.

path	Standardized estimates of path coefficients
Civic virtue → unit performance	0.482 (p< 0.05)
sportsmanship → unit performance	0.296 (p< 0.05)
Helping → unit performance	-0.494 (p< 0.05)
Model fit: TLI = 0.96; CFI =0.97	

Table 12: parameter estimates for the aggregate effects of OCB on unit performance; adapted from Podsakoff und MacKenzie (1994), p. 358.

In general, the results support the idea that OCB has a positive impact on unit level performance. Both civic virtue and sportsmanship within the unit have significant positive effects on overall unit performance. However, helping behaviour has a negative influence on performance. This rather surprising finding will be reviewed in the discussion section below.

Podsakoff P.M. et al. (1997):

Background and Propositions

Podsakoff et Al. referred to potential reasons for the effects of OCB on organizational performance proposed in a paper by Podsakoff and MacKenzie (1997)⁹⁹. Based on these potential reasons, the authors expected helping behaviour, sportsmanship and civic virtue to have an influence on work group effectiveness¹⁰⁰.

Method

The sample of this study consisted of 218 employees working in a paper mill located in the US. Each employee was a member of a work crew which comprised four to six workers. Most workers were males and average tenure in the company was about 18 years. Compensation for each crew member was calculated on a combination of hourly wages and gain sharing based on the quality and quantity of the paper each crew produced.

To obtain data, the authors conducted a survey and analyzed company records. The survey included items covering the dimensions of helping behaviour¹⁰¹, sportsmanship and civic virtue. Rather than rating themselves or being evaluated by their supervisors, team members had to rate their peers¹⁰². Four months after the measurement of OCB, work crew performance was assessed using measures based both on quantity and quality. The measure of quantity was the amount of paper produced as a percentage of total machine capacity. Quality was measured as the percentage of paper produced that was either rejected by the mill's quality control or the customer.

In order to examine the aggregate effects of OCB on work group performance, the authors employed a two-step analytical procedure. In the first step, OCB was aggregated by averaging peer-rated OCB across team members. In the second step, the two measures of work crew performance were regressed on the aggregated OCB measures.

Results

The main results of the regression analysis are reported in the table below.

⁹⁹ For a more detailed outline and discussion of the theoretical paper written by Podsakoff and MacKenzie, see chapter 2.1.3.1

¹⁰⁰ In their theoretical paper, Podsakoff and MacKenzie discussed the effects of OCB on organizational performance. In this paper, the authors argued that the same potential reasons apply on the (work) group level as well.

¹⁰¹ In order to compare the results of the present study, it is important to keep in mind that helping behaviour is conceptualized as a second-order construct covering courtesy, peacekeeping and helping behaviours.

¹⁰² The authors chose peer rating because OCB needs to be aggregated at the same level as the criterion measure (which in this case is work crew performance).

	Quantity produced	Product quality
OCB	Standardized estimate	Standardized estimate
Civic virtue	n.s.	n.s.
Sportsmanship	0.393	n.s.
Helping	0.397	-0.11
Variance explained	25,7%	16.7%

Table 13: Ordinary least squares regression parameter estimates for work crew OCB on quantity and quality (significance level = 0.05; n.s. = not significant); adapted from Podsakoff et al. (1997), p. 267.

The results indicate that sportsmanship and helping behaviour have significant positive relationships with the quantity measure. Furthermore, helping behaviour is negatively related to the percentage of paper that is rejected. OCB accounts for almost 17 percent of the variance in the quality measure and for about 26 percent in the variance of the quantity measure.

Walz, S.M. & Niehoff, B.P (2000):

Background and Propositions

The aim of this study was to contribute empirical evidence concerning the impact of aggregate OCBs on organizational effectiveness. Using Organ's five dimensional model and multiple criteria for organizational effectiveness, the study had two objectives. Firstly, the authors wanted to examine the relationship between aggregate OCB and organizational effectiveness measures and secondly they were interested in the variance in organizational effectiveness explained by OCB.

Method

Data were gathered from 30 limited-menu Mexican restaurants in the US. Most employees worked part-time and the average tenure was nine months. The general manager of each restaurant provided ratings of the in-role and citizenship behaviour of five employees¹⁰³. The authors analyzed archival measures of organizational performance and customer perceptions for the performance data.

OCB was measured using items based on Organ's typology, namely helping, courtesy, conscientiousness, sportsmanship and civic virtue. To capture organizational effectiveness,

¹⁰³ In order to avoid selection bias, the authors named five randomly chosen employees for each restaurant.

the authors used both measures of organizational performance (e.g. food cost percentage, revenue to full time equivalent, operating efficiency ratio) and of customer satisfaction (e.g. customer complaints, overall customer satisfaction, company quality performance).

Data for OCB were averaged across the five employees for each restaurant. After aggregating, multiple regression was used to determine the influence of each subdimension of OCB on organizational effectiveness.

Results

The following table summarizes the results of the multiple regression analysis. It shows significant regressions for organizational effectiveness indicators on OCB.

OCB	Organizational Performance		
	Food Cost Percentage	Revenue to full time equivalent	Operating Efficiency Ration
	Beta	Beta	Beta
Helping	-0.39	0.43	0.38
Sportsmanship	-0.36	n.s.	n.s.
Civic virtue	n.s.	n.s.	n.s.
Variance explained	43 %	18 %	15 %
OCB	Customer Perception		
	Food Cost Percentage	Revenue to full time equivalent	Operating Efficiency Ratio
	Beta	Beta	Beta
Helping	n.s.	0.62	0.44
Sportsmanship	0.31	n.s.	n.s.
Civic virtue	-0.47	n.s.	n.s.
Variance explained	37 %	39 %	20 %

Table 14: significant regressions for organizational effectiveness indicators on OCB, adapted from Walz and Niehoff (2000) p. 313.

In general, OCB is significantly and positively related to organizational effectiveness. This effect can be shown both for measures of organizational performance and for measures of customer perception. Considering OCB's subdimensions, helping, sportsmanship and civic virtue seem to have a positive impact on OCB, whereas courtesy and conscientiousness have

no significant relationships with OCB. The values for the variance explained show that a considerable part of the variation in organizational effectiveness can be attributed to OCB.

Koys, D. (2001):

Background and Propositions

Koys started with the notion that most empirical studies regarding the effects of human resource outcomes on business outcomes used cross-sectional designs. Thus, it remained unclear whether good firm performance allows companies to engage in progressive HR strategies or whether progressive HR strategies cause good firm performance. To address this problem, Koys employed a longitudinal design. Defining firm performance as consisting of profitability and customer satisfaction and looking at one attitude (employee satisfaction) and two behaviours (OCB and turnover), the author proposed the following hypothesis: *There is a significant relationship between Year 1's unit-level employee satisfaction (positive), OCB (positive) and employee turnover (negative) and Year's 2 unit level profitability and customer satisfaction.*

Method

Data from 28 stores of a regional restaurant chain in the US were collected over a two-year period. OCB was assessed via a survey of the employees' managers. In Year 1, 64 managers respond the survey; in Year 2 this number increased to 79. The measurement model for OCB consisted of five items, each representing one subdimension of OCB¹⁰⁴. To measure customer satisfaction, customers were asked to fill out a survey. Finally, profitability was measured using two management ratios derived from company records. The first of these ratios was "profits after controllable expenses". To take into account differences in overhead costs, the second ratio consisted of "profits after controllable expenses" divided by "total sales". The aggregated data were analyzed using multiple regression analysis.

¹⁰⁴ The subdimensions are based on Organ's typology (helping, conscientiousness, courtesy, sportsmanship, civic virtue).

Results

Table 11 below shows the main results of the regression analysis.

	Profit, Year 2	Profit as % of sales, Year2	Customer Satisfaction, Year 2
	Beta	Beta	Beta
Employee satisfaction, Year 1	n.s.	n.s.	0.62***
OCB, Year 1	0.41**	0.38*	n.s.
Employee turnover, Year1	n.s.	n.s.	n.s.
Variance explained (corrected for shrinkage)	0.14	0.17	0.31
F	2.50*	2.79*	4.51***

Table 15: HR outcomes (Year1) predicting Organizational Effectiveness (Year 2); adapted from Koys (2001) p. 110. (significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.001$).

According to the regression analysis, OCB does have an influence on profitability but not on customer satisfaction. In order to check the robustness of these results the author conducted additional regressions. Firstly, since the profits of Year 1 may have an impact on the profit of Year 2, Koys included the profits of Year 1 into the regression. The inclusion of the profits of Year 1 as a control variable did not alter the pattern of results reported in Table 11. Secondly, a regression with OCB as dependent and organizational effectiveness as independent variable is calculated to check for reverse causality. The results indicate that OCB in Year 1 has a positive influence on profitability in Year 2, but profitability in Year 1 has no impact on OCB in Year 2. Therefore, OCB can be considered a cause for profitability.

Bell, S.J., & Bulent Mengue (2002):

Background and Propositions

The main focus of this paper was to explore the contribution of OCB to customer perception of service quality. Additionally, the authors wanted to analyze the important antecedent factors of OCB and variables moderating the relationship between those factors and OCB. The authors considered perceived organizational support (POS) and organizational identification to be relevant determinants of OCB. Job autonomy was supposed to moderate both the influence of POS and organizational identification on OCB.

Since this chapter deals with the consequences of OCB, only the main focus, i.e. OCB's impact on service quality, is discussed in the following section. However, the complete

model, including antecedents and moderators, plays an important role in discussing the motivational basis of OCB in subsequent chapters (cf. chapt. 3.3).

According to Bell and Mengue, the influence of OCB on service quality may be twofold. On the one hand, customers witness OCB directly by interacting with agents. On the other hand, OCB may have positive effects on service quality through its impact on factors internal to the organization, such as employees' work environment, team cohesiveness and consistency of service processes. Thus, the authors propose the following hypothesis. *There will be a positive direct relationship between contact-employees' OCB and customers' perceptions of service quality.*

Method

The sample was taken from of a large retail insurance organization in the US. Data were gathered using survey methodology. In order to avoid common method bias, two sources contributed to the study. Managers described insurance agents' OCB and customers assessed service quality. A total of 262 employee-customer dyads provided feasible information.

OCB was conceptualized using Organ's five dimensions (helping, courtesy, sportsmanship, conscientiousness, civic virtue). Service quality was supposed to be an important indicator of business performance in the context of insurance agencies. Thus, organizational performance was measured with items covering employee-related service quality.

Analyzing the data, the authors proceeded in two steps. Firstly, both the measurement and the structural models were estimated by means of structural equation modelling. Secondly, the proposed model was tested against theoretically plausible alternative models employing a competing model strategy.

Results

The final model¹⁰⁵ has good overall fit measures (CFI = 0.95, AGFI = 0.92, RMSEA = 0.05) and all relevant path coefficients are significant (see table below).

¹⁰⁵ The authors adapted the hypothesized model by dropping insignificant paths. However, the changes were restricted to the antecedent and moderating variables.

Path	Standardized path coefficients (incl. significance levels)
Altruism – service quality	0.32 (p < 0.01)
Courtesy - service quality	0.26 (p < 0.01)
Sportsmanship - service quality	0.20 (p < 0.05)
Conscientiousness - service quality	0.18 (p < 0.05)
Civic Virtue - service quality	0.20 (p < 0.05)

Table 16: standardized path coefficients, adapted from Bell and Menguc (2002), p. 141

According to this study, all the subdimensions of OCB have a significant, positive impact on organizational performance measured as service quality.

Bienstock, C.C. et al (2003):

Background and Propositions

Bienstock et al. referred to a conceptual model of service quality developed by Parasuraman et al. (Parasaruman et al. 1985). According to these authors, a gap often exists between the service standards defined by the organization and the service actually delivered by employees. However, there is a lack of understanding what human resource policies can contribute to closing this gap. Therefore, the main focus of this paper was to find out how human resource management policies lead to desired employee performance in service organizations. Since the production of services requires non-mandated employee behaviours as well as independent, individual initiatives, the authors considered OCB to be an appropriate construct for modelling the impact of human resource practices on service quality. Focusing on the consequences of OCB, the following remarks omit those parts of the model dealing with the antecedents of OCB¹⁰⁶. The authors propose the hypothesis stated below:

“There will be a positive relationship between the organizational citizenship behaviours demonstrated by employees and the extent to which service is delivered according to organizational service standards and requirements” (Bienstock et al. 2003, p. 364).

Method

Data were gathered from 49 restaurants of a fast food franchise located in the US. In order to measure OCB, the authors asked employees to fill in a survey containing items about

¹⁰⁶ The antecedents will be discussed in greater detail in chapter 2.1.2.

behaviours related to OCB. For each restaurant, a random sample was drawn, resulting in 141 returned surveys. In contrast to most other studies, the authors did not rely on Organ's original conceptualization on OCB. Instead they used a definition which was originally proposed by Graham and which was operationalized by Van Dyne (Graham 1991, van Dyne 1994). According to this definition OCB consists of three distinct categories (cf. chapter 2.1.1.4): organizational obedience (e.g. completing assigned tasks), organizational loyalty (e.g. speaking favourably about the restaurant to others) and organizational participation (e.g. sharing ideas for improvement). To capture organizational effectiveness, Bienstock et al. made use of customer-rated service quality and operational inspection data provided by the management. Because service quality was regressed on the inspection data and not directly on OCB, only the inspection data are reported in the next section. These inspection data measured the extent to which each restaurant met organizational delivery standards.

Results

In order to test the hypotheses, the authors use structural equation modelling. The overall fit measures for the proposed model are good (NFI = 0.924, RMSEA = 0.643). The values are reported in the table below for the relevant paths.

path	Standardized estimates of path coefficients
OCB → Insp 1	0.607 (p< 0.05)
OCB → Insp 2	0.657 (p< 0.05)
OCB → Insp 3	0.516 (p< 0.05)

Table 17: standardized estimates; adapted from Bienstock et al. (2003) p. 370.

All coefficients indicate a significant, positive influence of OCB on service delivery standards.

2.1.3.3 General discussion

The studies presented above support the notion that OCB supports organizational performance in a variety of performance criteria and organizational settings. However, some questions need to be addressed before these findings can be generalized. Finally, a positive OCB-performance link allows drawing conclusions regarding OCB's underlying motives.

1) Most studies investigating the effects of OCB on organizational performance employ a cross-sectional design. One drawback of this design is the difficulty of determining the direction of causality. For example, in the first study (Podsakoff and McKenzie 1994) it is possible that higher levels of sales performance cause higher levels of OCB. But even the use of experimental and longitudinal designs has not been able to resolve the problem of causality adequately. The studies of Koys (2001) and Bachrach et al. (2001) illuminate this point. Koys, using a longitudinal design, reports that OCB in year 1 has a positive influence on profitability in year 2, but profitability in year 1 has no impact on OCB in year 2. Hence, OCB causes a rise in profitability. In contrast to this finding, Bachrach et al. (2001) conduct a laboratory simulation in which groups of students first have to perform a task. After completing the task, the groups receive feedback concerning their performance. Finally, the group members have to report levels of experienced OCB. Groups who received a positive feedback reported higher levels of OCB than those receiving negative feedback. This was even true in the case of false performance feedback¹⁰⁷. Thus, high reported levels of performance lead to high levels of reported OCB. For an adequate interpretation of Bachrach et al.'s study it is important to note that OCB was measured a posteriori by peer ratings. Thus, the result of the study can be expressed more precisely as "higher levels of performance feedback lead to higher levels of a posteriori peer-reported group level OCB". However, this does not imply that OCB is really high. If OCB is high in reality, then we can conclude that OCB may have caused team performance. In contrast, if OCB in reality is low (i.e. there is in fact no correlation between OCB and performance), we may conclude that high levels of performance lead to explanations of this high performance which include the notion that OCB causes high performance. The authors favour this second interpretation. Note that this interpretation does not imply reverse causality (i.e. performance causes OCB). Rather it explains why studies may find positive correlations between OCB and performance even though no causal relationship exists. In any case, only a direct a priori observation of OCB would allow one to distinguish these two interpretations.

Thus, a positive correlation between OCB and performance reported in a study using cross sectional design could mean that OCB causes performance or that performance causes OCB or that neither of these two possibilities is true¹⁰⁸.

¹⁰⁷ One possible explanation for this finding is that implicit theories are held by the participants. If people have the implicit theory that high levels of OCB lead to high performance, positive feedback leads people to conclude that there must be high levels of OCB (Bachrach et al. 2001).

¹⁰⁸ For a more thorough discussion of causality, cf. 3.1.3.

2) McKenzie & Podsakoff (1994) report a negative relationship between helping behaviour and performance while three other studies find positive relationships between these behaviours (Podsakoff et al. 1997, Walz & Niehoff 2000, Bell & Mengue 2002). One explanation of this contradictory result could be differences in the compensation systems. While the insurance agents in McKenzie & Podsakoff are paid in relation to their individual performance, the employees in the other samples receive bonuses based on group performance. It may be less attractive for an individually paid employee to engage in helping behaviour than for an employee whose pay depends on the performance of others. Hence, the design of the compensation system may moderate the relationship between OCB and organizational performance. Another possible moderator consists in the technological requirement of the job. Referring to a taxonomy proposed by Thompson (Thompson 1967) Organ proposes that the presence of long link technologies (which imply mutual dependence) will lead to a stronger relationship between helping behaviour and organizational performance than the absence of these technologies (Organ 2006).

Due to the inherent complexity of organizational performance many more moderators are likely to exist.

3) The comparability of the studies is hampered by the use of different measures for organizational performance. Some studies use subjective measures like supervisor ratings of overall performance. Others rely on objective measures like financial figures. The situation is further complicated by different levels of analysis. Each performance criterion can be measured at the individual, the group or the organizational level¹⁰⁹. Considering these differentiations, the studies reported above can be categorized as follows. Podsakoff & McKenzie (1994) and Podsakoff et al. (1997) employ objective measures at the group level. Walz and Niehoff (2000) and Koys (2001) use both subjective and objective measures at the organizational level. Finally, Bell & Mengue (2002) and Bienstock et al. (2003) apply subjective measures at the organizational level.

Therefore, any empirical research that aims to model the relationship between OCB and performance adequately has to consider the issues of measurement criteria and levels of analysis. Niehoff, for example, makes a strong claim for using multiple indicators of organizational performance (Niehoff 2005; c.f. chapter 2.1.3.1). An integrated model for dealing with multiple levels of analysis is proposed by Nielsen et al. (2005).

¹⁰⁹ Things can become even more complicated because the predictor variable also can be measured at different levels of analysis (Nielsen et al. 2005).

4) All studies reported in the previous section provide evidence for a positive relationship between OCB and organizational performance¹¹⁰. However, it is conceivable that OCB has a negative impact on organizational performance. Hunt, for example, argues that OCB may detract from performance in Taylorist jobs (Hunt, 2002)¹¹¹. Bolino et al. propose several reasons why OCB may have detrimental effects (Bolino et al. 2004). Firstly, OCB and in-role performance may not be additive, i.e. employees who engage in OCB may neglect their formally assigned responsibilities. Secondly, for some OCB-related behaviour, it may be less expensive to hire additional specialists. For example, instead of helping each other with computer problems, an organization could hire more computer experts. Thirdly, the quality of OCB may be insufficient. An employee who spends a lot of time advising his coworkers may contribute little to overall performance if his advice is wrong. Finally, OCB may be indicative of poor management or understaffing. Organizations whose employees constantly work overtime may deliberately have hired too few people.

The possibility of negative consequences has repercussions for the definition of OCB. Organ originally defined OCB as behaviours that “in the aggregate promote the effective functioning of organizations” (Organ 1988, p.4). In contrast Bolino et al. suggest that “it seems inappropriate to explicitly define OCB in terms of its presumed motives and consequences” (Bolino et al. 2004, p. 243). Instead, “future research should focus on the specific behaviours themselves” (Bolino et al. 2004, p. 243). There are, therefore, two possible ways to define OCB. The first definition conceives positive consequences as integral to OCB. The second drops this assumption and defines OCB as set of specific behaviours (e.g. helping, civic virtue, conscientiousness). In this thesis a definition similar to Organ’s is favoured, for empirical and conceptual reasons. Empirically, the existing evidence supports the notion that OCB has a positive impact on OCB. Conceptually, the choice is between defining specific behaviours (and saying nothing about consequences or other conditionals) and defining specific conditionals like positive consequences and discretionary behaviour (and saying nothing about specific behaviours). A definition similar to Bolino’s implies the fixing of a specific set of behaviours. However, if this fixing is not supposed to be arbitrary, the definition has to refer to conditionals like those employed in Organ’s definition. By referring to such conditionals, the set of behaviours will depend on the situational occurrence of these conditionals. Hence, it would be impossible to define a set of behaviours for all situations. In

¹¹⁰ The only exception is the negative relationship between helping behaviour and unit sales in Podsakoff & McKenzie (1994).

¹¹¹ According to the author, a Taylorist job is characterized by repetitive tasks and low decision-making capabilities (Hunt 2000, p.153).

contrast, by forbearing to include a specific set of behaviours, a definition similar to Organ's can be applied to a broad range of organizational settings. Furthermore, the two specific conditionals (i.e. "discretionary behaviour" and "promotes the effective functioning of the organization") allow the assignation of a set of behaviours in most concrete samples. It turns out that this set of behaviours is determinable in most cases and contains the same elements in a broad range of organizational settings.

5) The finding that OCB supports the effective functioning of the organization has ramifications for OCB's underlying motivation. On the one hand, knowing that performing OCB equals contributing to the success of the organization may enhance internal motivation. For instance, since OCB helps organisations to thrive, engaging in OCB is likely to become a social norm. Over some time, some people may internalize this norm and perform OCB because they think it is the right thing to do¹¹².

But on the other hand, this knowledge can give rise to external motivation as well. If – for example – organizational incentives are linked to an employee's contribution to the company's success, it may be tempting to perform OCB to get these organizational rewards¹¹³. In fact, this very argument has initiated a separate stream of research which investigates the impact of OCB on supervisor's allocation decisions (Bolino, 1999). Since this research has close connections with work on impression management, we'll discuss it in more detail in chapter 2.2.1.2.

In conclusion, the results are in general supportive of a positive OCB-performance link, but several caveats remain: the direction of causality, the influence of potential moderators and the difficulty of operationalizing "organizational performance". Although it is feasible that in some instances OCB has negative consequences for the organization, the notion "OCB in general and in the aggregate promotes the effective functioning of the organization" should remain an integral part of the definition of OCB. Finally, the finding that OCB supports the effective functioning of the organization provides reasons that OCB can be motivated externally.

¹¹² In the next chapter 2.3. we'll refer to this kind of motivation as "obligation based motivation".

¹¹³ In the next chapter 2.3. we'll refer to this kind of motivation as "career based motivation".

2.1.4 Synopsis of chapter “What is OCB?”

Three strands of literature characterize the development of OCB: work based on Organ’s original conceptualization, on contextual performance and on extra-role behaviour. Analysing these strands reveals that OCB is supposed to be internally motivated, that observable behaviour is often not separated from latent motivation and that different theories are employed to explain why people engage in OCB.

Meta-analytic evidence summarizing the impact of various antecedents reveals that attitude (i.e. fairness and leadership) and – to a lower degree – task characteristics and personality factors have a considerable influence on OCB. An important insight from discussing the antecedents consists of recognizing the lack of explicit modelling of OCB’s motivational basis.

When it comes to consequences, empirical evidence shows that OCB influences qualitative and quantitative performance indicators alike. However, much more empirical studies have been conducted to investigate antecedents than to study consequences of OCB. From a motivational point of view, the finding that OCB is sometimes officially rewarded opens the door for an enlarged motivational basis which includes external motivation.

Our working definition refers to OCB as observable behaviour, which is discretionary, which goes beyond formal and informal role prescriptions and which promotes the efficient and effective functioning of the organization. Hence, OCB may be rewarded and we cannot make a priori any statements regarding both the specific behavioural manifestations and the underlying motivation of OCB. In addition, it is important to clearly separate OCB as an observable behaviour from motivation as a latent construct.

The following picture resumes the sequential approach presented at the beginning of the chapter and presents some answers to key questions of this chapter.

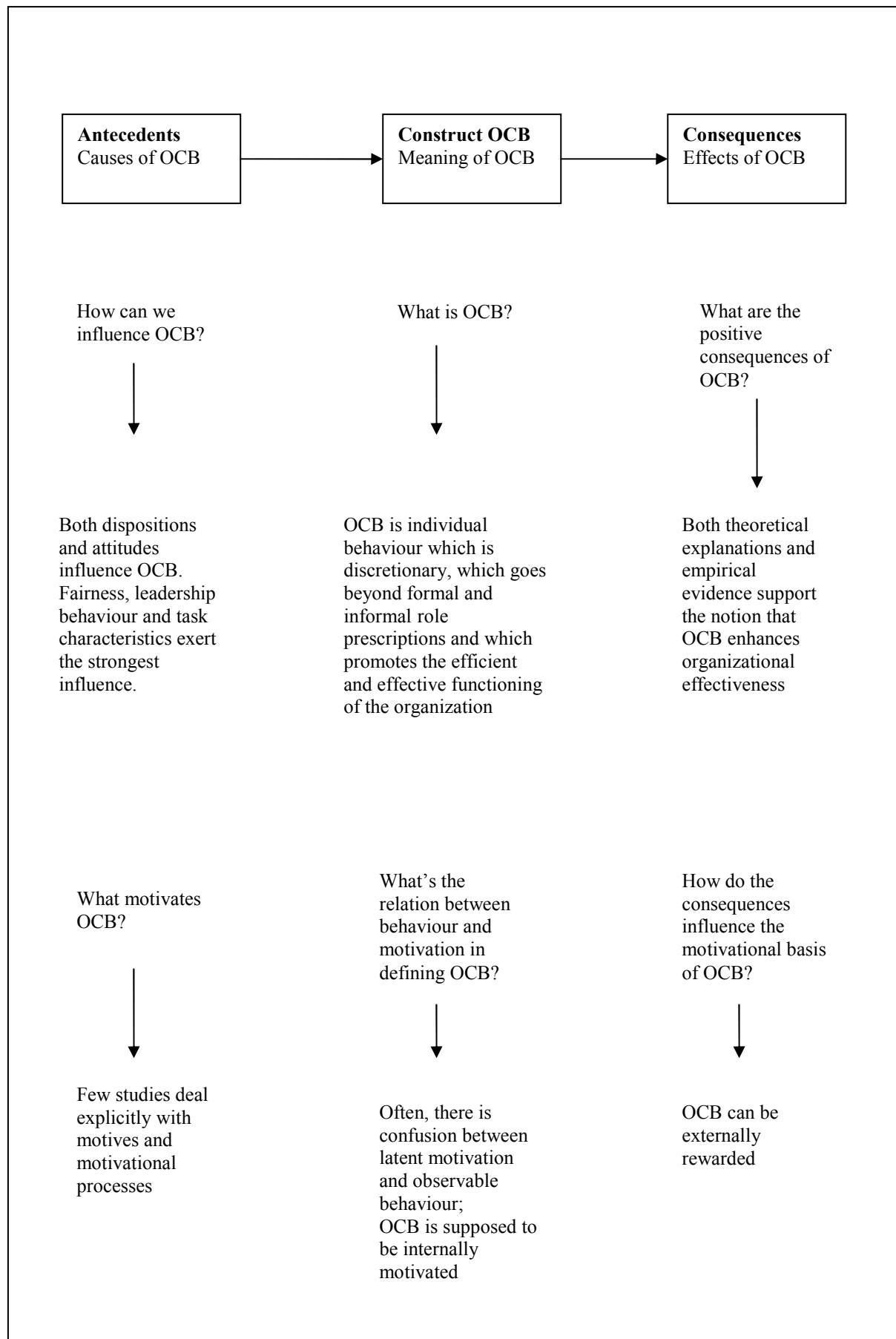


Figure 8: Summary of chapter 2.1.

2.2 Motivational basis of OCB

The goal of this thesis is to contribute to a deeper understanding of the motivational forces driving OCB. In order to reach this goal the present thesis critically examines the existing literature and develops a motivational framework consisting of different motives. After discussing literature on the construct, the antecedents and the consequences of OCB, this chapter takes a closer look at papers that explicitly deal with the motivational basis of OCB. This involves two steps. The first step encompasses a comprehensive review of the relevant literature (chapt. 2.2.1). In the second step this literature is critically discussed and conclusions regarding the motivational basis of OCB are drawn (chapt. 2.2.2).

2.2.1 State of the art

The process of sorting out papers referring to motivation and OCB is complicated by the fact that two different views on the topic exist. The first view, which we term the broad view, considers the motivational basis to be composed of a whole range of different predictors¹¹⁴. Among those predictors are attitudes, mood states, personal traits, cognitions and affects. While discussing single studies of the broad view would certainly exceed the space available, a sound overview can be found in the chapter dealing with meta-analyses of antecedents (chapt. 2.1.2). In short, and at the risk of some exaggeration, we can say that every construct that has positive correlations with OCB and that can reasonably function as an antecedent is a motivational driver of OCB.

The second view, which we call the narrow view, encompasses papers that make explicit the underlying motivational mechanism. For instance, a paper investigating the influences of leadership style on OCB belongs to the broad view if it only reports correlations between leadership and OCB; it is a member of the narrow view if it proposes and measures a process explaining why certain forms of leadership lead to higher engagements in OCB.

The relationship between the narrow and the broad view is visualized in the figure below.

¹¹⁴ The terms narrow view and broad view cannot be found in the OCB literature. They are considered to be useful distinctive features by the author.

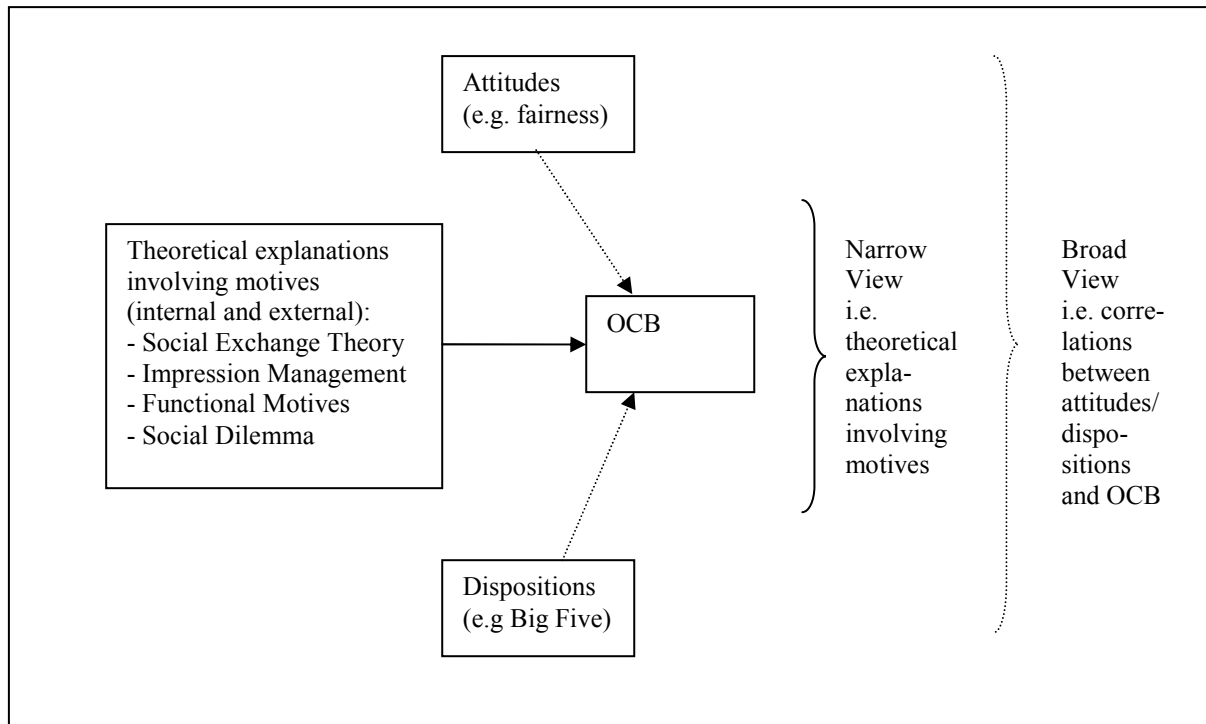


Figure 9: Broad and narrow view of the motivational basis of OCB

In the following sections we restrict attention to the narrow view of the motivational basis of OCB. We do so because, while the broad view may identify potential predictors, it still does not explain why these predictors influence OCB. Hence, the motivational black box remains closed. As we have argued before, opening the black box not only leads us into sparsely researched territory; it also enhances our understanding of the construct and provides valuable guidance for an effective management of OCB. Consequently, the sections below discuss both empirical and theoretical research for different categories of the narrow view.

Using theoretical background as distinctive feature yields four categories of research based on the narrow view. Presented in chronological order, these four categories are:

1) Research rooted in Social Exchange Theory (Social Exchange Theory)

Organ was the first to propose Social Exchange Theory as an explanation for the motivational basis of OCB (Smith et al. 1983). Since then, Social Exchange Theory and related concepts like equity or reciprocity have been those used most prominently by proponents of the narrow view.

2) Research rooted in Performance Appraisal and Impression Management

Although studies investigating the influence of OCB on performance appraisal and subsequent rewards and those focusing on employees' impression management tactics can be regarded as separate strands of literature, it makes sense to discuss them simultaneously, for only the joint examination of supervisor (i.e. performance appraisal) and employee (i.e. impression management) behaviours allows postulating a motivational mechanism based on external motivation.

3) Research rooted in functional motives

Influenced by research conducted by Rioux and Penner, some papers investigate the predicative value of functional values (Rioux & Penner, 2001). According to these researchers, OCB is motivated by specific categories of internal and external motives.

4) Research rooted in social dilemmas

The most recent contribution of the narrow view consists of papers that bring together research on social dilemmas and insights from traditional OCB research to postulate an external motivational basis of OCB.

2.2.1.1 Social exchange theory and psychological contracts (Social Exchange Theory)

Social Exchange Theory is the most commonly employed theory to explain why employees perform OCB. In their introduction sections, many papers refer to Gouldner's norm of reciprocity and to Blau's distinction between social and economic exchange (Blau, 1964; Gouldner, 1960). Organ was among the first to put forth this interpretation. In his view, if supervisors treat employees fairly and if employees have internalized the norm of reciprocity, OCB is a likely way for employees to reciprocate. But why reciprocate with OCB? Because task performance is supposed to be more constrained by situational factors than OCB, which is by definition discretionary behaviour (D. W. Organ et al., 2006). Since then, the basic logic has mostly been the same: OCB occurs in social exchange relationships and the norm of reciprocity drives employees to engage in OCB as a reaction to favourable treatment by the organization. However, few studies explicitly model and test the social exchange process. In this section, we discuss two influential papers which propose and empirically test social exchange models in the context of OCB.

I) Konovsky & Pugh

The authors start their argument by clarifying economic and social exchange (Konovsky & Pugh, 1994). In contrast to economic exchange, in which future obligations and returns are specified in advance, social exchange entails unspecified future obligations and returns. In the case of social exchange, the question arises what motivates employees to engage in relationships characterized by the risk of being exploited. According to the authors, macro-motives like commitment, loyalty and trust are necessary to provide the motivation to engage in social exchange relationships. Since social exchange does not occur on a quid pro quo or calculated basis, employees' trusting that exchange partners will fairly discharge their obligations in the long run is a *sine qua non* condition for establishing and maintaining social exchange relations. Having established trust as an important predictor of OCB in social exchange contexts, the article assumes that trust itself is influenced by procedural fairness in supervisors' decision making. Why focus on procedural fairness? Because procedural fairness indicates a supervisor's respect for the rights of employees and a likelihood that he will deliver on his promises. In contrast, distributive justice is seen as typical metric for judging the fairness of economic exchange. And why focus on supervisors' decision making? Because supervisors are considered to act as representatives of the organization. Based on this reasoning, the authors hypothesize that trust predicts OCB and mediates the relationship between procedural justice and citizenship behaviour. In addition, procedural justice is supposed to be a stronger predictor for trust than distributive justice.

Using survey data from hospital employees ($n = 475$), the authors employ Structural Equation Modelling to test their model. Results indicate that both the fully and the partially mediated model fitted the data well (Chi-square = 410 with 132 df for the fully mediated model; Chi-square = 410 with 130 df for the partially mediated model; the change in Chi-square of 0.94 with 2 df is not significant). Employing the parsimony criterion, the authors retain the fully mediated model, which is depicted below.

To summarize, this study shows that trust fully mediates the relationship between procedural justice and OCB, indicating a social exchange mechanism which is based on supervisor's procedural fairness in decision making and employees' trust in their supervisor.

Discussion

While other scholars refer vaguely to Social Exchange Theory in explaining OCB, Konovsky & Pugh are among the few who explicitly model and test social exchange processes. Their model points to the importance of trust in understanding how Social Exchange Theory works

to predict OCB. Furthermore, the study underscores the relevance of procedural fairness in fostering OCB. However, the article leaves three relevant questions open. Firstly, why exactly does OCB only occur in social exchange relationships? Is this so because fairness is a necessary precondition for OCB to occur and fairness leads to social exchange relations?¹¹⁵ Or is this so because employee relationships are always relational? Secondly, why do people react to fair treatment by performing OCB? We could imagine other behavioural responses to fairness (e.g. flattery). Finally, where is the norm of reciprocity? Social Exchange Theory relies on the assumption that employees have an internalized norm of reciprocity. However, it is not sure that all employees have internalized this norm to the same degree. Hence a full-range test of Social Exchange Theory in the context of OCB would model and measure norms of reciprocity.

II) Coyle-Shapiro

This study applies the psychological contract framework to investigate the motivational basis of OCB. Psychological contracts are seen as an advancement of the social exchange models first proposed by March and Simon (March & Simon 1958). In March and Simon's model, employees exchange their contributions for certain inducements that the organization provides. Building on this idea, psychological contracts differentiate between perceived employer inducements (i.e. actual inducements) and perceived employer obligations (i.e. anticipated inducement). According to the author, both types of inducement entail different motivational explanations for the occurrence of OCB (Coyle-Shapiro, 2002). Actual inducements lead to OCB because employees, following the norm of reciprocity, feel obliged to reciprocate by performing OCB. In contrast, anticipated inducements exert an influence on OCB, because the realization of these inducements depends on how the employee behaves in that relationship. Consequently, employees should be motivated to behave in a manner that increases the likelihood of those potential inducements being realized. Knowing that supervisors value employees' OCB, performing OCB provides an effective way to increase this likelihood. Hence, the author hypothesizes that both present and anticipated inducements influence OCB. In addition, these relationships are supposed to vary across individuals. For actual inducements, an employee's acceptance of the norm of reciprocity may moderate the relationship. And, for anticipated inducements, trust increases the subjective probability that

¹¹⁵ The article seems to favour this explanation, in line with Organ's reasoning. However, empirical evidence shows that procedural fairness is not a necessary precondition of OCB.

the supervisor sticks to his promises. Thus, trust may moderate the relation between anticipated inducements and OCB.

The hypotheses are tested using survey data gathered at three measurement points over a three-year period from public sector employees ($n = 480$). Hierarchical regression analysis shows that both actual and perceived inducements have a positive impact on OCB. In addition, usefulness analysis reveals that perceived inducements explain variance in OCB beyond actual inducements. This supports the idea that anticipated inducements have additional explanatory power. Concerning interaction effects, moderated regression supports the hypotheses. Hence, the relationships between present inducements and OCB differ from those between anticipated inducements and OCB. Finally, the underlying motivational mechanisms for actual inducements differ from the mechanism for anticipated inducements.

Discussion

This article is among the few that explicitly measures the norm of reciprocity. All too often, the existence of this norm is taken for granted¹¹⁶. Furthermore, the author disentangles reactive and proactive reciprocity. This enhances our understanding of the motivational basis of OCB, because the processes associated with reactive reciprocity are different from the processes triggered by proactive reciprocity. In addition, differing between two forms of reciprocity in Social Exchange Theory models allows to model time more adequately. Finally, the author provides additional reason why people reciprocate by performing OCB (and not by performing another kind of behaviour). Knowing that their supervisor values OCB, they engage in OCB, because they think that supervisors are more likely to fulfil their future obligations. This explanation has the advantage that it entails OCB as a logical (re)action of rational employees with reciprocity norms. Furthermore, this explanation is stronger than Organ's account, which states that employees reciprocate with OCB because task performance is often constrained by technical or procedural standards. Considering the fact that OCB is not the only behavioural reaction available, Organ's explanation does not provide reasons why OCB should be the preferred way to reciprocate.

Finally, two critical points are worth mentioning. Firstly, since all constructs are measured using self-ratings, the results could be biased due to common method bias. Secondly, it is not clear why trust is a moderator and not a mediator (for the norm of reciprocity this kind of modelling makes sense, because it is a dispositional factor).

¹¹⁶ For example, behavioural economics has shown that human populations consist of individuals with different kinds of preferences: altruistic, reciprocal and selfish.

2.2.1.2 Performance Appraisal, Rewards and Impression Management

This section brings together two strands of literature which are often treated separately. Yet together they challenge established views on OCB and provide evidence for a motivational explanation based on external motivation.

The first strand of literature is rooted in a series of studies dealing with the consequences of OCB for individuals. These studies cover a range of different issues. For example, Cheng finds a positive relationship between OCB and turnover. Employees who were rated as showing low levels of OCB are found to be more likely to leave an organization than those who were rated as showing high levels of OCB (Cheng, X.P. 2005, Cheng X.P. et al. 1998). Tepper et al. studied the relationship between coworkers' OCB and fellow employees' attitudes (Tepper et al., 2004). According to this study, coworkers' OCB has a positive impact on fellow employee's satisfaction and commitment¹¹⁷. However, the remainder of this chapter focuses on studies which are concerned with the influence of OCB on performance evaluation and resource allocation. There are several reasons for this restriction. Firstly, most of the studies dealing with the individual consequences of OCB cover issues of evaluation and reward allocation. Secondly, the results of these studies are highly relevant for the management of human resources. For example, results from these studies may contribute to a better design of performance appraisal systems. Thirdly, this line of research helps to clarify discussions arising from Organ's original definition of OCB. One of these discussions is concerned with the status of OCB as discretionary behaviour. Another discussion relates to the notion that OCB is not recognized by the formal reward system. Finally, and most importantly, findings from these studies give valuable hints about the motivational basis of OCB.

Whereas the first strand of studies is primarily concerned with supervisors' behaviour (i.e. the evaluation of employee behaviour and the allocation of rewards), the second strand focuses on employee behaviour. The focus of this kind of research can be summarized by the following reasoning. Studies concerned with the influence of OCB on performance appraisal and reward have shown that OCB can be rewarded. Hence, for employees, incentives exist to perform

¹¹⁷ The goal of this study is to find empirical support for Podsakoff's proposition that OCB influences organizational performance by making organizations more attractive places to work (c.f. chapter 2.1.3.1). In addition this study yields support for the notion that attribution of motives has an impact on coworkers' attitudes. Discussion of this finding will be resumed in chapter 2.2.1.3.

OCB in order to receive rewards. Are employees motivated by these incentives? If they are, they are motivated by instrumental (i.e. external) motivation to perform OCB.

Thus, the results of these two strands of literature form an argument that not only challenges basic features of the OCB definition; it also provides evidence for a motivational process based on external motivation. The reasoning behind this evaluation-impression management argument is summarized in the figure below.

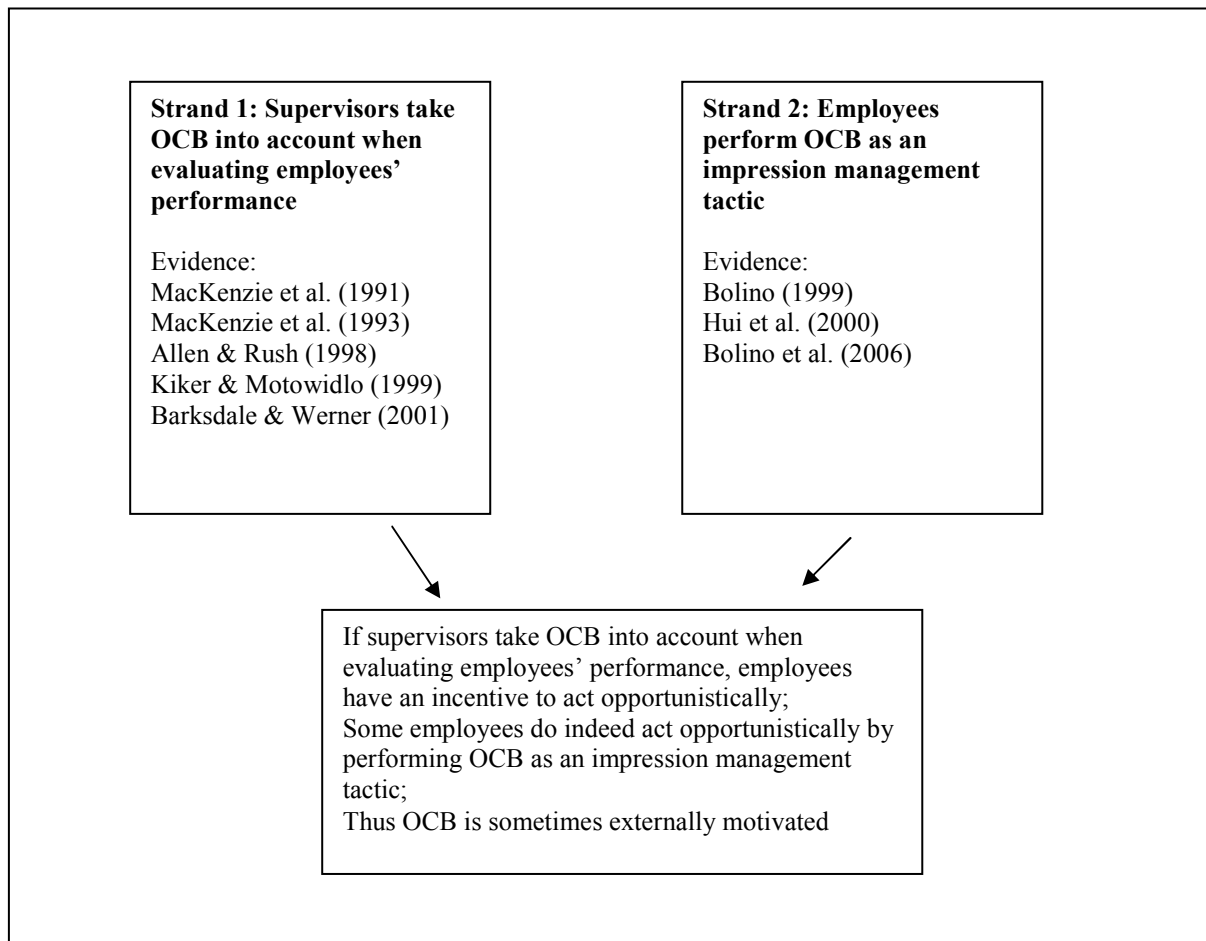


Figure 10: The Evaluation-Impression Management argument

a) First strand of literature - Performance Appraisal and Reward

The following section discusses a selection of studies dealing with the impact of performance appraisals on OCB in some depth ¹¹⁸. In order to present a representative selection one has to keep in mind that these studies differ methodically in important ways. Some studies use subjective measures for task performance (e.g. supervisor ratings) while others employ objective measures (e.g. financial figures). Some are concerned with performance evaluations while others focus on allocation decisions (e.g. promotion, salary). And lastly, some are field studies, and others make use of experimental designs.

The following five studies are representative of these methodological differences; they belong to the most cited studies in this area and they allow insight into problems related to the definition and motivational basis of OCB. McKenzie et al. (1991) and McKenzie et al. (1993) are the pioneers in this field (Mackenzie et al., 1991; Mackenzie, Podsakoff, & Fetter, 1993). They conducted a field study concerned with evaluation as criterion and used objective measures for task performance. Allen & Rush (1998) employed both field and laboratory designs, chose evaluation and reward as dependent variables and measured subjective task performance. In addition, these authors explicitly investigated the motivational basis of OCB (Allen & Rush, 1998). Kiker & Motowidlo (1999) worked with experimental simulation, subjective measurement of task performance and allocation of rewards (Kiker & Motowidlo, 1999). Finally, Barksdale & Werner (2001) collected their data in a field study and made use of subjective ratings of task performance. This study also considered reverse causality and investigated the question whether managers distinguish between in-role and extra-role performance (Barksdale & Werner, 2001).

Additional examples of evidence of the influence of OCB on performance appraisal by supervisors can be found in (Borman, White, & Dorsey, 1995) and (Motowidlo & Van Scotter, 1994).

¹¹⁸ A more comprehensive account of this line of research can be found in Podsakoff et al. (2000) and Organ (2006).

I) MacKenzie et al. (1991)

Background and Propositions

MacKenzie et al. start with the empirically confirmed fact that managers' subjective ratings of employees' performance only show marginal correlations with objective performance measures (MacKenzie et al. 1991). This finding can be explained by taking into account evaluation errors (e.g. halo effect). However, managers' evaluation behaviour is not necessarily influenced by errors. It may be quite rational for managers to include other information than objective performance measures in their performance assessment. According to the authors, OCB may reasonably provide such additional information for managers. A possible reason for OCB's added value in the performance evaluation process is the positive effect of OCB on both managerial and organizational effectiveness¹¹⁹. If, for example, employee OCB enhances managerial productivity by contributing valuable new ideas, it is in the managers' own best interests to include these behaviours in the performance evaluation. Thus, the authors propose the following hypothesis: "Both quantitative sales performance and OCB will significantly affect managers' evaluations of agents' performance" (MacKenzie et al. 1991, p.127).

Method

The sample consisted of 372 insurance agents located in the US (n= 259 for the primary sample and n= 113 for the cross validation sample). Agents had worked with their managers an average of 2.8 years.

Objective measures of agents' performance were obtained from company records (e.g. total dollar amount in commissions). Using a questionnaire, managers rated both agents' OCB and agents' sales performance. The measurement of OCB was based on Organ's typology and included helping behaviour, civic virtue, sportsmanship and courtesy¹²⁰. Subjective performance was measured with four items (e.g. "...is very good at turning casual contacts with people into selling opportunities").

The proposed model was tested using structural equation modelling. In order to validate the results, the authors performed two additional analyses. First, they conducted a cross validation with a second sample comprising 113 agents. Second, to avoid common method bias, a latent method factor was included in the proposed model.

¹¹⁹ For a more detailed discussion concerning the reasons to include OCB in subjective performance evaluations, see chapter 2.1.3.1.

¹²⁰ Conscientiousness was dropped because it was not considered to be extra-role behaviour in this context.

Results

In order to determine the relative fit of the proposed model, the authors employ a nested model comparison strategy. The model, which includes both OCB and objective performance as exogenous variable and subjective performance as endogenous variable, turns out to be the best fitting model. The estimated path coefficients are listed below.

path	Standardized estimates of path coefficients
Objective performance → subjective evaluation	0.404 (p< 0.01)
Helping Behaviour → subjective evaluation	0.487 (p< 0.01)
Civic Virtue → subjective evaluation	0.272 (p< 0.01)
Model fit: TLI = 0.92; variance explained = 0.45	

Figure 11: parameter estimates for the significant paths; adapted from MacKenzie et al. (1991), p. 136.

The results indicate that objective performance, helping behaviour and civic virtue have a significant influence on managers' subjective performance evaluations. The pattern of results remains the same for the cross validation sample and after controlling for common method bias.

II) MacKenzie et al. (1993)

Background and Propositions

The purpose of this study was to check the robustness and transferability of the results of the study discussed in the previous section. The main hypothesis remained the same. "... we expect both objective sales productivity and organizational citizenship behaviours to have a positive influence on managerial evaluations of sales personnel." (MacKenzie et al. 1993, p.71).

In order to test this hypothesis, the authors conducted three survey studies in different settings.

Method

For all three studies, the methodology and analytical procedures were identical to those described in the section above. The objective of the first study was to assess the robustness of the authors' previous study by attempting to replicate it. The sample of study one consisted of 261 insurance agents working in the US. To test the transferability of the results across sectors, the second study was conducted in the petrochemical industry. A total of 204 industrial salespeople participated in this study. The goal of the third study was to determine

whether hierarchical level altered the results. In this study, 32 national sales managers rated both the OCB and the subjective performance of 108 district sales managers in an international pharmaceutical company.

Results

Standardized estimates for significant paths and fit measures are depicted in the table below.

Paths	Study 1	Study 2	Study 3
Objective performance → subjective evaluation	0.442 (p< 0.01)	0.134 (p< 0.05)	0.196 (p< 0.05)
Civic virtue → subjective evaluation	0.463 (p< 0.01)	n.s.	0.215 (p< 0.05)
Sportsmanship → subjective evaluation	0.142 (p< 0.05)	0.235 (p< 0.01)	0.323 (p< 0.03)
Helping behavior → subjective evaluation	0.202 (p< 0.05)	n.s.	n.s.
Conscientiousness → subjective evaluation	Not included	0.503 (p< 0.01)	0.465 (p< 0.01)
TLI	0.90	0.93	0.99
CFI	0.92	0.95	0.99
Proportion of variance explained	0.65	0.44	0.61

Table 18: parameter estimates for the significant paths; adapted from MacKenzie et al. (1993), p. 75.

These results are remarkable in several ways. Firstly, the studies yield different results for some subdimensions of OCB. For example, helping behaviour has a significant influence on subjective performance ratings only in study one. Secondly, the model containing OCB and objective sales performance as exogenous variables scores best in all nested model comparisons. Thus, OCB and objective performance seem to be important predictors for managers' subjective performance evaluations. Thirdly, the results are both robust and transferable. Robustness is checked by replication and by introducing a latent common method factor. Since all three studies are conducted in different settings, results can probably be generalized. Fourthly, in all three studies OCB accounts for a larger proportion of the variance in managerial evaluations than objective performance measures.

III) Allen T.D. & Rush M.C. (1998)

Background and Propositions

MacKenzie et al. had shown in several field studies that OCB has a major influence on managers' assessment of employees' performance (MacKenzie et al. 1991, MacKenzie et al. 1993). However, it remained unclear which psychological mechanisms may underlie this effect. The goal of this study was to open this black box by proposing and testing possible mediating variables. Drawing on social information processing theory, the authors assumed that OCB influences social categorization processes, which in turn affect performance

judgments¹²¹. Two category-based affects – liking and affective commitment – were expected to mediate the relationship between OCB and subjective performance evaluation. In addition, job expectation was supposed to moderate the relationships between OCB and both mediating variables. Finally, motives attributed to OCB were hypothesized to mediate the impact of OCB on managers' performance ratings.

Method

In order to enhance both internal and external validity, the authors conducted a survey study and a laboratory experiment. The sample of the survey study consisted of 148 subordinates who were rated by their supervisors. OCB was measured using Organ's five subdimensions. For each subdimension, participants were asked to denominate the underlying motive. As dependent variables, Allen and Rush introduced overall evaluation and reward recommendations. To test the hypotheses, the authors performed a series of hierarchical linear regressions.

The participants of the laboratory study were 136 undergraduate students. These students viewed and rated videotaped segments of teaching performance. The experimental design included a systematic variation of in-role performance and OCB. The measures as well as the analytical procedures were the same as in the survey study.

Results

The results of the field study indicate that OCB has a significant impact on performance evaluation and that this relationship is mediated by liking and affective commitment. The postulated moderated effect of job expectations is not supported. Thus, categorization of behaviour as in-role or extra-role does not alter the results. A mediating effect of attributed motives can be shown for overall evaluations but not for reward recommendations. Since the mediating effect of attributed motives plays a crucial role in the discussion of the motivational basis of OCB in chapter 2.3, the results of the hierarchical regression are depicted below.

¹²¹ Because OCB is not required by the organization, these behaviours are salient and may serve as important behavioural cues. Therefore, OCB is likely to trigger social categorization processes.

	Dependent variable: overall evaluations		
	Step1	Step 2	Step 3
Task performance	0.65	0.41 (p< 0.001)	0.34 (p< 0.001)
OCB		0.36 (p< 0.001)	0.16 (n.s.)
Altruistic motive			0.39 (p< 0.001)
Instrumental motive			0.06 (n.s.)
R ² at each step	0.42	0.49	0.56
Delta R ²		0.07 (p< 0.001)	0.07 (p< 0.001)
F			43.54

Table 19: The mediating role of motive attribution: results for the multiple linear regression. Adapted from Allen and Rush (1998) p. 252.

In the laboratory study, the mediating effect of liking and affective commitment is supported. Job expectation did not moderate any relationships and the attribution of motives was not included in the experimental design.

In summary, the studies show a positive impact of both task performance and OCB on overall evaluation and reward recommendations. Social categorization processes probably play a crucial role in explaining these relationships. In the context of this thesis, the mediating role of attributed motives is of special importance.

IV) Kiker, D.C. & Motowidlo S.J. (1999)

Background and Propositions

Kiker and Motowidlo argued that although several studies had analyzed the influence of task performance and OCB on managers' performance evaluations, the existence of interaction effects had not been tested yet. Therefore, the goal of their work was to study such interaction effects. Based on Werner's empirical findings (Werner 1994), the authors postulated a positive interaction effect between OCB and task performance.

Method

According to the authors, previous studies examining managerial performance evaluations lacked internal (correlation studies based on survey data) and external (unrealistic experimental designs) validity. In order to alleviate these problems, a manager simulation with systematic manipulations was employed. A total of 494 undergraduate students had to work on an inbasket simulation. While performing this task, the participants were interrupted by videotaped vignettes. These vignettes contained examples of extra-role and in-task

performance in different combinations. At the end of the inbasket simulation, participants were asked to rate the performance they experienced in the vignettes and to allocate rewards. In defining extra-role behavior, the authors referred to Borman and Motowidlo, who introduced the term contextual performance (Motowidlo & Van Scotter, 1994). Contextual performance shares great similarities with Organ's OCB¹²². In this study, the authors focussed on interpersonal facilitation as an important aspect of contextual performance¹²³. Reward allocation decisions as the dependent variable included pay increase, promotion and assignment to development programs.

In order to test the proposed interaction effect, the authors employed analysis of variance.

Results

The statistical analysis reveals that both task performance, $F(3, 479) = 69.6$ $p < 0.01$, and interpersonal facilitation, $F(3, 479) = 26.0$ $p < 0.01$, have positive effects on reward decisions. In addition, the interaction effect between task performance and interpersonal facilitation is also significant, $F(9, 479) = 9.6$ $p < 0.01$. Thus, showing interpersonal facilitation is more rewarding for people who show higher levels of in-task performance.

V) Barksdale K, Werner J.M. (2001)

Background and Propositions

Starting with Smith (Smith et al. 1983), there was an ongoing debate concerning the relationships between OCB and performance. Barksdale and Werner wanted to contribute to this debate in two respects. Firstly, they were interested in the ability of managers to differentiate between OCB and in-role behaviour. Based on the studies of Williams and Anderson (1991), they proposed the following hypothesis: "Managers will perceive in role behaviour, altruism and conscientiousness as distinct, yet related aspects of employee performance" (Barksdale & Werner 2001, p. 147).

Secondly, they wanted to know whether managers consider both aspects of employee performance when forming overall ratings of employee performance. In line with the studies described above, the authors proposed that Managers' ratings of overall performance will be predicted by measures of (a) IRBs (b) altruism and (c) conscientiousness.

¹²² For a more detailed discussion concerning similarities and difficulties between Organ's OCB and Borman's contextual performance, see chapt 2.1.1.

¹²³ Interpersonal facilitation overlaps with helping behaviour to a high degree.

Method

The sample for this study consisted of 101 supervisors of MBA students located in the US. The supervisors rated the students by filling in a survey covering the areas of task performance (in-role behaviour), OCBI (helping behaviour), OCBO (conscientiousness) and comparative overall performance.

Both hypotheses were tested using structural equation modelling. In order to evaluate the first hypothesis, two models were compared. In the first model, the measures of In Role Behaviour, OCBI and OCBO loaded on the same latent construct. In the second model, the items of In Role Behaviour, OCBI and OCBO each loaded on correlated, but separate latent constructs.

To validate the second hypothesis, a model with In Role Behaviour and OCB as exogenous variables and comparative overall performance as endogenous variable was estimated. However, there was the possibility of reverse causality. High levels of overall performance may lead managers to the conclusion that employees must have shown high levels of OCB. In order to rule out this halo effect, the authors estimated a model with overall performance as exogenous variable and OCB/In Role Behaviour as endogenous variables as well.

Results

Model comparison reveals that the three-factor model fits the data significantly better than the one-factor model (Chi-square difference = 96,4/ difference in degrees of freedom = 3). Thus, managers are able to differentiate between task performance and OCB.

Hypothesis 2, predicting that OCB and In Role Behaviour influence overall performance ratings, is partially supported. While In Role Behaviour ($\gamma = 0.68$, $t = 2.76$) and helping behavior ($\gamma = 0.34$, $t = 3.86$) have an impact on performance rating, conscientiousness does not. The fit measures for the model with reverse causality are worse than those for the model which corresponds to hypothesis 2. However, since the models are not nested, it is not possible to perform a model comparison.

In summary, the study shows two things. First, managers are able to distinguish between task performance and OCB and second, managers' ratings of overall performance are influenced by both task performance and OCB.

Discussion of studies I) – V)

In conclusion, the empirical evidence supports the notion that OCB influences both managerial evaluation and resource allocation. These results are consistent over a broad range of organizational settings and are based on different research designs. Furthermore, OCB explains more variance in evaluation and resource allocation than task performance.

Yet, they are not without limitations. These limitations range from issues of causality (Allen & Rush 1998, Kiker & Motowidlo 1999, Barksdale & Werner 2001) over problems of common method bias¹²⁴ (only McKenzie et al. 1991/1993 control for common method bias) to the inclusion of interaction effects (e.g. Allen & Rush 1998 and Kiker & Motowidlo 1999). Since many of these limitations are related to methodological issues reported in the discussions about the antecedents (chapter 2.1.2) and the consequences on the organizational level (chapter 2.1.3), we'll not discuss these issues in detail.

Rather, the following annotations focus on the implications of these results for issues of definition and motivation. For that matter, it makes sense to distinguish the role of the supervisor (the person who evaluates) from the role of the subordinate (the person being evaluated).

1) supervisors

For the conclusion that OCB influences managerial cognitions and choices to be valid, managers must be able to make a distinction between task performance and OCB. If managers can not make this distinction OCB is considered to be a part of task performance. In this case, the notion "OCB influences managerial cognitions and choices" equals "task performance influences managerial cognitions and choices". Hence, the results of the studies could be considered as additional contribution to the vast empirical literature on task performance appraisal.

Allen & Rush (1998) and Barksdale & Werner (2001) address this question empirically. According to both studies, supervisors actually do discriminate between OCB and task performance. This result has implication for the definition of OCB. According to Organ's definition OCB are "discretionary behaviours". While this makes intuitively sense, this part of the definition is only of practical value if people are able to distinguish "discretionary behaviours" from "mandatory behaviour"¹²⁵.

¹²⁴ Common method bias can occur if both the dependent and the independent variable are measured using the same measurement instrument. As a result, correlations coefficients tend to be biased upwards.

¹²⁵ In this sense, the empirical literature on individual consequences of OCB contributes to the discussion initiated by Morrison (Morrison 1994). See chapter 2.1.1.5 for an account on the "Morrison debate".

If managers indeed do discriminate between task performance and OCB: why do they include OCB in their overall performance evaluations and decisions about resource allocations? Unfortunately, not much is known about these underlying cognitive processes. Referring to studies outside the realm of OCB Organ and Podsakoff et al. propose several reasons why OCB might influence managerial evaluations of performance (Organ 2006, Podsakoff et al. 1993). According to these authors both conscious and unconscious cognitive processes may be involved. Because OCB is discretionary behaviour, acts of employee OCB may serve as behavioural clues for the motivation and commitment of the employee¹²⁶. Or managers may want to reciprocate for the extra effort of their employees¹²⁷. An example for an unconscious cognitive process could be schema triggered affect. When an object is identified by a person as belonging to a previously defined, affective laden category, the affect associated with the category is retrieved. Thus, if managers include OCB in their definition of good employees, those employees who exhibit OCB will trigger positive affect and may therefore be evaluated more favourably.

2) Subordinate:

Turning our attention to the subordinates, another element of Organ's original definition becomes crucial. This definition states that OCB is "not rewarded by the formal reward system" (Organ 1983, p. 653). Yet, the empirical evidence clearly states that OCB is in fact rewarded. Therefore, the question arises if it is adequate that this element remains part of the definition of OCB. In our view, the prerequisite that OCB is not rewarded by the formal reward system should be dropped for the following reasons.

First, as noted above, the empirical evidence clearly shows that this prerequisite is often violated. Second because the prerequisite doesn't hold in most cases, the set of behaviours satisfying the definition "OCB" would be very small (if not zero). A definition that leads to a marginal set of behaviours is of little theoretical and practical use. Third, the two other prerequisites i.e. "discretionary behaviour" and "in general and in the aggregate promotes the effective functioning of organizations" define a construct that has both a clear theoretical meaning and practical value. Therefore, for reason of parsimony, clear cut meaning and practical value it is sufficient to define OCB with those two prerequisites. Fourth, the adding of the condition "not rewarded by the formal reward system" leads to complications in checking whether this condition holds. How can we test that OCB is really not formally rewarded? Because evaluation and reward decisions often follow a hidden agenda or are

¹²⁶ Hence, OCB could also be interpreted as „signalling“.

¹²⁷ This explanation is based on the assumption that people have internalized norms of reciprocity and fairness.

results of unconscious cognitive processes, we cannot simply ask people whether they include OCB in their decisions.

The realization that OCB influences evaluation and resource allocation processes also gives hints concerning possible motives underlying employee OCB. If OCB is rewarded and people know that it is rewarded three possibilities arise. The first possibility is that employees want to reciprocate the favourable evaluations. Although these favourable evaluations may take place in the future, the employee may trust the manager that he will render a positive evaluation. Another possibility is that employees are career minded and therefore perform OCB because they know that they will be rewarded. A final possibility consists of employees who simply don't care if they are rewarded or not. Hence, three possible motives are compatible with the observed pattern: reciprocity, instrumental and other (probably internal) motives. The (reasonable) possibility that OCB may be caused by instrumental motives is certainly a challenge to mainstream research in the area of OCB. Investigating those motives will be the focus of the following section.

b) Second strand of literature - Impression Management

We now turn our attention to employees' behaviour and motivation in the face of the finding that OCB can be rewarded. Two papers investigating this topic have become cornerstones in the discussion about the motivational basis of OCB. The first paper, written by Bolino, draws on research on impression management to postulate that OCB is based on external motivation (Bolino, 1999). At about the same time, the second paper employs Vroom's VIE theory to investigate instrumentality belief regarding OCB and promotion (Hui, Lam, & Law, 2000). In the following section, both these papers are discussed. In addition, the results of a recent follow-up paper by Bolino are presented (Bolino, Varela, Bande, & Turnley, 2006).

I) Bolino (1999)

Bolino refers to meta-analytic results indicating that most research on the motivational basis of OCB focuses either on job attitudes or on individual disposition. Positive job attitudes induce OCB by evoking a sense of obligation. According to social exchange theory, this sense of obligation may drive an employee to reciprocate by performing extra-role behaviour. Some employees also have a natural inclination to perform OCB, reflecting those employees' predispositions to be helpful, cooperative or conscientious. However, research conducted by Eastman and Ferris et al. (Eastman 1994, Ferris et al. 1994) indicates that engaging in OCB may be impression-enhancing and self-serving. This notion is strengthened by comparing the concept of OCB with results from research on impression management¹²⁸. The comparison reveals that many impression-management tactics are quite similar to sub-dimensions of OCB. Helping behaviour, for example, may occur because an employee has a prosocial personality or because she wants to impress her supervisor. According to Bolino, OCB is not motivated solely by external impression-management motives. Rather, these external motives coexist with the felt obligation to reciprocate and prosocial predispositions. Drawing on this premise the author develops an extended framework for the motivational basis of OCB. In the context of the subsequent discussion, several features of this proposed framework are particularly important.

Firstly, disposition, social exchange based on felt obligation to reciprocate, and impression-management motives jointly influence the level of OCB. Hence, both internal and external motives are part of the motivational basis of OCB.

¹²⁸ Impression management refers to the process by which people attempt to influence the image others have of them.

Secondly, due to the overlap of OCB and Impression Management (especially exemplification and ingratiation), employees may engage in OCB as an Impression Management tactic.

Thirdly, Impression Management is supposed to be motivated according to an expectancy value model. According to this model, three main factors determine the motivation to engage in Impression Management: goal relevance of impressions (i.e. does OCB lead to image enhancing?), value of image enhancement (i.e. what's the utility of engaging in image enhancement?), and discrepancy between desired and current images.

Fourthly, Impression Management motives not only influence OCB directly; they also interact with traditional motives like norms of reciprocity or prosocial personality orientation. Specifically, the relationship between traditional motives and citizenship behaviours is supposed to be weaker in the presence of impression management motives.

Fifthly, OCB that qualifies as Impression Management may have negative consequences for the organization, because employees engaging in Impression Management are distracted from their task at hand, and because they perform OCB with less endurance and only when someone is watching.

Discussion

Bolino (1999)

The relevance of this article for the present thesis can hardly be overestimated. In particular, the author

- points to the overlap between OCB and Impression Management, a relation that had not been noted before
- argues convincingly that OCB can be driven by instrumental, external motivation
- shows how value-expectancy theory can be applied in OCB research
- proposes a framework that integrates traditional, internal motivation and external, impression-management motivation
- suggests how motives moderate the antecedents-OCB and OCB-consequences relationships
- notes that OCB based on Impression Management motives may have reduced positive consequences for the organization; an argument underscoring the importance of studying the motivational basis of OCB
- hints at the importance of coworkers' attributions regarding the motives of OCB

Besides these virtues, one critical point should not be forgotten. Both OCB and Impression Management are broad constructs, covering a wide range of behaviours. Even more

importantly, as we argue in chapter 2.1, the specific behavioural content of OCB is idiosyncratic and the same is true for Impression Management. Hence, it does not make much sense to point to specific behaviours and claim that they are representative for both constructs. According to the context, nearly all kinds of behaviours can qualify as OCB (i.e. they are discretionary, beyond role prescriptions and positive for the organization) and simultaneously as Impression Management (i.e. they serve to impress others). Extending this reasoning, we could label each behavioural manifestation of OCB with different terms, but this would only create confusion. For instance, helping motivated by fun in the activity of helping could equally be OCB and narcissistic behaviour. Rather, we should focus on one behavioural category (in our case OCB) and recognize that this behavioural category can serve other purposes than having positive effects for the organization. If those purposes lie in the behaviour itself, the behaviour is internally motivated; if those purposes lie outside the behaviour itself (i.e. the behaviour is instrumental, as in the case of Impression Management), the behaviour is externally motivated.

II) (Hui et al., 2000)

Discussion

This study, which has become one of the most highly regarded OCB studies in recent years, is characterized by three accomplishments. Firstly, it shows that engaging in OCB entails substantial rewards. Secondly, by measuring instrumentality beliefs, the study provides direct evidence for instrumental (i.e. external motivation) for OCB. Thirdly, the longitudinal design supports the causal ordering, i.e. that external motivation causes OCB.

Besides those strengths, some critical points are also worth mentioning. In order to explain the underlying motivational processes, the authors refer to Vroom's VIE theory. However, they just measure perceived instrumentality that OCB leads to promotion. To provide a full theoretical explanation based on VIE theory, the expectation to be able to perform OCB and value of promotion also have to be accounted for. Finally, VIE as a process theory of motivation only has limited value for developing a finer grained typology of internal and external motivation.

III) Bolino et al. (2006):

In this article, the authors empirically test an elaborated version of the conceptual model proposed by Bolino (Bolino 1999). Drawing on research on cognitive biases in performance rating processes, they hypothesize that Impression Management has a positive influence on the supervisor rating of OCB and that favourable ratings of OCB have a positive impact on performance ratings. Hence, supervisor ratings of OCB are supposed to mediate the relationship between Impression Management and performance ratings. While supervisors complete questionnaires measuring OCB, performance ratings and likeability, employees are asked to assess three types of Impression Management tactics: supervisor-focused tactics, i.e. ingratiation behaviours, self-focused tactics, i.e. behaviours aimed at making the employee appear hardworking and kind, and job-focused tactics, i.e. self-promotion.

Analysing a sample of 122 supervisor-subordinate dyads reveals that supervisor-rated OCB mediates the relationship between supervisor-focused Impression Management and both likeability and employee performance. The corresponding structural model has good fit measures (Chi-square = 4.49, df=6, GFI = 0.99, CFI = 1.00).

To sum up, this study shows that Impression Management has a positive influence on a supervisor's rating of OCB and that this OCB rating influences a supervisor's evaluation of the subordinate's overall performance.

Discussion

The main virtue of this study is that it empirically tests the "Impression Management-causes-OCB-causes- performance evaluation" thesis. Hence, this paper supports the notion that OCB may be externally motivated, i.e. people perform OCB as an impression-management tactic to receive favourable performance evaluations¹²⁹. The finding that only supervisor-focused Impression Management has a positive influence on supervisor ratings of OCB backs this interpretation. From a methodical point of view, it is worth noting that the authors systematically compare their hypothesized model with theoretically feasible alternative models. This underscores the explanatory power of the proposed model. However, the evidence would be even more convincing if two elements were added to the causal chain. Firstly, drawing on evidence presented at the beginning of this chapter, we assume that high ratings of OCB not only lead to favourable performance ratings but also entail rewards in the forms of promotions or pay rises. Secondly, this study measures Impression Management as

¹²⁹ Discussing the results, the authors focus on the supervisor and recommend steps to avoid evaluation biases. However, we shift attention to the employee, which is in line with Bolino's earlier argument (Bolino 1999)

behaviour but does not explicitly investigate the underlying motives. Nonetheless, having empirical evidence for these motives would rule out the unlikely case that other than instrumental motives cause Impression Management.

2.2.1.3. Functional – Motives Approach

After Social Exchange Theory, which stresses internalized norms of reciprocity and research on Impression Management, and performance appraisal and reward, which is concerned with instrumental motivation, a third theoretical explanation enters the stage. This explanation originates in research on volunteering behaviour and primarily deals with role concepts and functional motives. This section starts with a paper developing the logic of the functional motives approach. Next, we discuss an empirical paper which tests central statements of the new approach. Finally, two elaborations – one more empirical and one more theoretical – are discussed.

I) Conceptual model: Penner, Midili & Kegelmeyer (1997)

Penner et al. were the first to propose a functional explanation for the motivational basis of OCB (Penner et al., 1997). They started with the assumption that OCB has much in common with volunteerism. Both OCB and volunteerism are prosocial behaviours, both require long-term commitment, both usually occur in an organizational context and both are discretionary behaviours, i.e. they involve free choice. Hence, variables influencing volunteerism may also have an impact on OCB. Specifically, the authors referred to three categories of variables which have been shown to cause volunteerism. Firstly, they argued that the small influence of personality traits in OCB research is likely due to the prevalent use of the Five-Factor Model of Personality (Costa & McCrae, 1992). Instead of relying on this Five-Factor Model, the authors proposed prosocial personality orientation as an enduring predisposition to feel concern about the welfare of other people and to engage in actions on their behalf. Using prosocial personality orientation to predict volunteerism, several studies found much higher correlations between trait and behaviour than studies employing the Five-Factor Model (see e.g. Penner, Fritzsche, Craiger, & Freifeld, 1995)¹³⁰. Secondly, role identity theory may contribute to an understanding of the causes of OCB. According to this theory, volunteering

¹³⁰ In addition, empirical evidence exists that shows significant correlations between prosocial personality orientation and OCB (McNeely & Meglino, 1994; Midili, 1995)

occurs most often in an organizational context. Parts of this organizational context are roles, i.e. behaviours that are expected from someone holding a specific position. If someone has held a position in which they volunteer for some time and has exerted the corresponding expected behaviour, the role can become a part of a person's personal identity or self-concept. Since people strive to maintain an internalized role, they are likely to show behaviours that are associated with this role. Finally, the authors refer to a functional approach to volunteerism. According to this approach, different people can engage in the same behaviour for different reasons. For example, a person may help someone else because she cares about the other person's well-being or because she wants to show her superiority. Hence, knowledge about reasons or motives underlying behaviour may enhance the understanding of this behaviour. Ranging from the desire to fit in a reference group to the desire to avoid the feeling of being a selfish person, the literature on volunteerism posits different motive categories (Clary, Snyder, Ridge, Miene, & Haugen, 1994).

To sum up, by referring to research on volunteerism Penner et al. propose causes for OCB beyond mood, job attitudes and organizational variables. While prosocial orientation and motives for OCB are most likely to induce OCB, citizen role identity plays an important role in maintaining extra-role behaviour.

II) Empirical test: (Rioux & Penner, 2001)

The goal of this study is to further elaborate and to test the functional explanation of OCB empirically. The functional approach differs in two respects from previous research on the causes of OCB. Firstly, the authors propose a shift from OCB as reactive behaviour to OCB as proactive behaviour. Many scholars implicitly or explicitly assume that OCB is a reaction to an individual's attitudes towards his job, his supervisor or the organization as a whole. In contrast, Rioux and Penner propose that people may actively choose to engage in OCB, i.e. OCB is considered to be a proactive behaviour. Employees proactively choose OCB because by performing these behaviours an employee can satisfy individual motives. This emphasis on motives is the second distinctive feature of Rioux and Penner's functional approach. It is assumed that much human behaviour is motivated by a person's motives and needs. However, two persons engaged in the same behaviour do not necessarily have the same motives, and a person's behaviour can be driven by several motives simultaneously.

In order to empirically test the explanatory power of the functional approach, the authors conducted two studies. The aim of the first study was to develop a reliable measure of

motives for engaging in OCB. After assembling 110 items of possible motives for performing OCB, factor analysis was employed to reduce the dimensionality of the predictor set¹³¹. The result yields a three-factor structure that can be interpreted in the following way. The first factor involves pride in and commitment to the organization and is labelled “organizational concern”. Since the second factor relates to the need to help others it is called “prosocial values”. Finally, the third factor – “impression management”- is characterized by a concern to avoid looking bad in front of coworkers and to obtain rewards. This three-factor structure can be replicated using an independent set of participants.

The second study deals with the importance of motives in predicting OCB. Specifically, the authors hypothesize that motives correlate with the dimensions of OCB differently and that motives account for unique variance in OCB. Using questionnaires, Rioux and Penner collected data about peer-, self- and supervisor-rated OCB, self-rated motives and several self-rated control variables. Correlational analyses revealed that, in general, prosocial values correlated more highly with altruism than with conscientiousness, and organizational concern had higher correlations with conscientiousness than with altruism. No significant correlations were found between impression management and any dimension of OCB. Thus, the hypothesis that different dimensions of OCB are associated with dissimilar motives is supported. The results of hierarchical regressions show that all three motive categories explain unique variance in OCB. Therefore, empirical evidence supports the claim that motives constitute an important cause of OCB.

To summarize, according to this study, OCB is, at least in part, a proactive behaviour driven by motives.

III) Elaborations: Finkelstein and Penner (2004); Van Dyne and Farmer (2005);

Finkelstein (2006)

Several studies build upon and extend the conceptual model proposed by Penner et al. Finkelstein and Penner’s goal was to replicate the findings of Rioux and Penner and to examine the interplay between motives, role identity and OCB (Finkelstein & Penner, 2004). Specifically, they hypothesized that role identity mediates the relationship between motives and OCB. Using questionnaires, they measured self-reported OCB, motives and role identity. To address the inconsistent findings regarding external motivation (impression management)

¹³¹ The item set was created on the basis of literature reviews and professional consultations. There is no evidence that item selection and development was guided by theoretical considerations.

an adapted version of the impression management scale is used¹³². Results showed that Prosocial Values motives are highly correlated with OCBI and Organizational Concern motives have strong correlations with OCBO. Thus, Rioux and Penner's main findings can be replicated. Impression Management correlates positively with OCBI but not with OCBO. However, the correlations are smaller than between Prosocial Values and OCBI, indicating that internal motives have a greater impact on OCB than external motives. Role identity is positively linked to OCBO/I and has positive correlations with Prosocial Values and Organizational Concern, but not with Impression Management. Hence, role concepts may be important in conjunction with internal, but not with external, motivation. Finally, role identity only partially mediated the relationship between motives and OCB. This means that the relation between motives and identity remains to be clarified.

Van Dyne and Farmer propose a conceptual model which also tries to clarify the interplay between motives, role identity and OCB (Van Dyne & Farmer, 2005).

In contrast to most research in the area of OCB, which focuses on paid work, Van Dyne and Farmer's paper deals with volunteer work in organizations. The reasons for concentrating on volunteers are twofold. Firstly, OCB performed by volunteers is predominantly a proactive behaviour¹³³. Secondly, research about volunteering provides additional insights into the mechanisms driving OCB. In expanding the criterion domain, the authors include both helping clients and helping the organization as subdimensions of OCB. The central proposition states that role identity is a causal mechanism predicting OCB. Role identity is the extent to which a role is part of a person's self-concept. In the case of volunteering, helping is considered a central element of the volunteer role. When role identity is strong, individuals are motivated to maintain the role by exhibiting behaviour (in this case helping behaviour) which is consistent with the role. Role identity is further divided into general role identity (GRI) and organizational specific role identity (OSRI). GRI refers to internalized expectations concerning volunteering that exist before an individual enters an organization. OSRI, in contrast, is a set of internalized behavioural expectations that are linked to the specific organizational setting. Using this role identity typology, the authors propose that GRI influences OSRI, which in turn has an impact on OCB. Moreover, the fulfilment of functional

¹³² The new scale for Impression Management measured the desire for two kinds of external rewards: interpersonal (i.e. interpersonal rewards bestowed by other individuals) and organizational (tangible rewards bestowed by the organization).

¹³³ In the context of paid work, OCB is mostly assumed to be a reaction to incentives provided by the organization (social exchange-based view). In the case of volunteer work, however, such incentives are absent or play a minor role.

motives is supposed to moderate the relationship between both kinds of role identity and OCB (see fig 4). Van Dyne and Farmer consider two motives to be important in moderating role effects. Fulfilment of expressive motives refers to satisfaction derived from performing helping behaviour for its own sake and is therefore a form of internal motivation. Instrumental motives include the desire to meet new people or to boost the career. Hence, instrumental motives are clearly external motivation. As an example of the proposed moderating effects, consider the relationship between OSRI and helping clients. The authors propose that the ongoing fulfilment of both expressive and instrumental motives will moderate the positive relationship between OSRI and helping directed at clients, such that the relationship will be stronger when fulfilment of motives is high and weaker when fulfilment is low. In order to explain the moderating effect of motives on helping behaviour, the authors employ a psychological contract perspective. The fulfilment of psychological contracts is supposed to strengthen role identity, which in turn fosters helping behaviour. Since motives determine which inducements are expected in the psychological contract, fulfilment of motives is likely to be equivalent to fulfilment of the psychological contract.

To sum up, the authors propose that functional motives interact with role identity to influence volunteer behaviour.

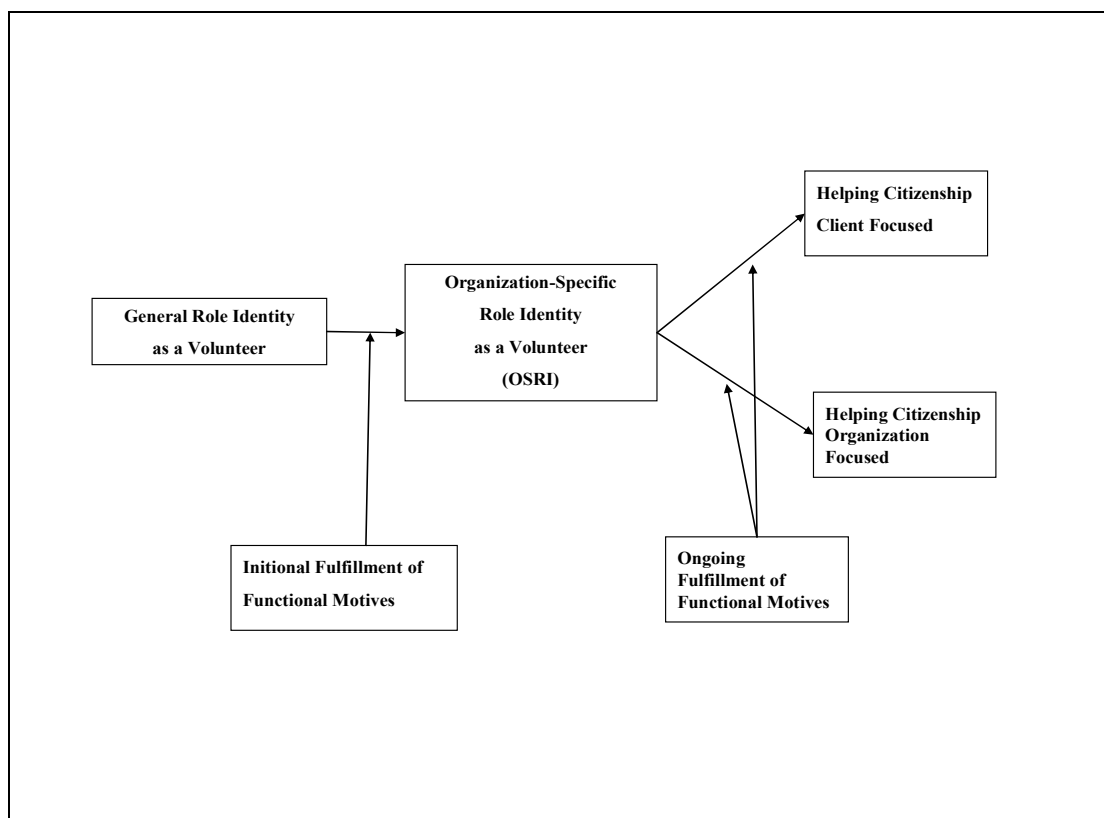


Figure 12: Relations between Role Identities, Fulfillment of functional motives and OCB
(Van Dyne&Farmer, 2005, p.183)

Discussion of articles I- III):

According to the frequency of citations, Rioux and Penner's article is one of the most influential articles explicitly addressing the motivational basis of OCB. The merits of this article are manifold. It is among the first to empirically investigate the role of motives in OCB. If OCB is motivated by the desire to satisfy individual motives, people may engage in OCB proactively. This means that OCB is not always induced by organizational practices. Further, the authors show that different dimensions of OCB are influenced by different motives. Hence, it makes sense to study the motivational basis of OCBI and OCBO separately. Ultimately, by introducing motives as predictors, Rioux and Penner are able to explain unique variance in OCB. This finding renders support for a functional explanation of OCB and encourages the inclusion of motives in the predictor set of OCB.

However, there are some critical points related to this study. The three-factor structure is empirically rather than theoretically derived. It would be interesting to compare the proposed motives with established theories of motivation¹³⁴. Although the items load neatly onto the three factors, the interpretation of the factor's content is not as straightforward as proposed in the article. For example, the impression-management motives include both the desire to avoid creating a negative image and the desire to obtain rewards. The finding that impression management (i.e. external motivation) has no significant correlations with OCB is contrary to the reasons participants mentioned in the scale development process and to the findings of other motive-based approaches (e.g. Bolino, 1999). Moreover, the nature of the motives remains unclear. Because personal value has strong correlations with a personality trait (empathy), this motive may be an enduring disposition. Organizational commitment, on the other hand, shows strong correlations with attitudinal variables (fairness), indicating that this motive may be a transitory reaction to organizational practices. Finally, the interplay between OCB, motives and other predictor variables is neither theoretically nor empirically addressed. Motives may moderate or mediate the relationship between predictor variables and OCB. They may also be independent predictors of, or even be influenced by, OCB.

The framework proposed by Van Dyne and Farmer has several intriguing features. Extending the performance domain to include helping clients adds an interesting new perspective to the conceptualization of OCB. Analogously to customer-oriented OCB, which is proposed by several scholars as an extension of existing work on OCB (e.g. Bell & Mengue, 2002), helping clients is a behaviour that crosses organizational borders. Further, the authors specify

¹³⁴ There are a range of theories dealing with the content of motivation. For a discussion in the context of Self determination theory, see chapter 2.2.3.

the concept of role identity in relation to OCB. Role identity is supposed to be a main effect in explaining helping behaviour. In addition, the classification of role identity as GRI and OSRI integrates role expectations existing in a broader social context (i.e. GRI) and stresses the fluid character of organizational specific role identities. This corresponds to the work of Morrison et al. stating that extra-role behaviour is not a fixed entity but is rather influenced by processes of interpretation and negotiation (Morrison, 1994). Finally, the inclusion of functional motives as moderating effects is a plausible way to link identity and motivational approaches. The theoretical explanation for the moderating effects employing psychological contracts is interesting in several respects. Rather than referring to breaching psychological contracts, the authors stress the importance of fulfilling these contracts. Furthermore, by integrating motive fulfilment in an exchange perspective, Van Dyne and Farmer propose a different role for social exchange processes than previous literature on the topic. While many scholars consider OCB to occur as a direct reaction to incentives provided by the firm, the authors propose that social exchange processes influence OCB indirectly and that motives play an important role in these exchange processes. In the author's own words: "identity maintenance through self-verification as a potential "deep structure" in which social exchanges are embedded" (Van Dyne & Farmer, 2005, p.198).

However, there are also some critical points worth mentioning. Firstly, the labelling of volunteer helping as OCB is not straightforward. While helping in paid employee relationships in many cases can be considered as extra-role behaviour, this may not be the case for volunteers. Indeed, volunteers are expected to help, making this behaviour in-role. They may choose proactively to engage as a volunteer, but once this decision is taken, helping lies at the very heart of a volunteer's work¹³⁵. Secondly, the proposed framework may contribute to an understanding of volunteer behaviour, but the transfer to situations characterized by paid work may be troublesome. There exist huge differences between volunteers and employees, a fact that is emphasized by the authors themselves (see table 1, p. 186 in Van Dyne & Farmer, 2005). In particular, it is not clear whether a "good citizen" role identity exists which has the same influencing power as a "volunteer" role identity. Thirdly, although the proposed relationships seem quite plausible, alternative explanations should also be considered. For example, motive fulfilment may mediate the relationship between role identity as volunteer and helping citizenship behaviour. Fourthly, the interpretation of motive fulfilment as a social exchange process can be questioned. According to such an

¹³⁵ This line of reasoning especially applies to volunteers who work directly with clients. Furthermore, helping directed toward the organization is more apt to be characterized as extra-role behaviour because helping the organization is usually not the main motivation for engaging in volunteer work.

interpretation, people reciprocate motive fulfilment through the strengthening or weakening of the relationship between role identity and helping behaviour. It is not obvious that people reciprocate in such a direct and deliberate way. Rather, it is at least as plausible that motive fulfilment influences the internalization of roles such that the fulfilment of motives strengthens role identity, which in turn increases the frequency of helping behaviour.

Fifthly, the development of an organization-specific role identity may be only marginally influenced by motive fulfilment. Concepts from social identity theory, such as self categorization, social comparison and internalization, may be more likely to shape the organization-specific role identity (Haslam, Powell, & Turner, 2000).

Finally, the motives are not systematically derived and the expressive-instrumental distinction is quite a general one. Concerning motives, the authors note “we suggest that more complex approaches would be interesting material for future research”.

2.2.1.4 OCB as social dilemmas

Recently, a group of researchers suggested a new way of thinking about OCB. According to these people, OCB can be framed as social dilemmas. Conceptualizing OCB this way has implications for the understanding of the construct and its motivational basis alike.

Being quite a new contribution, not so many studies have been published yet. The following section discusses one prominent study in some detail and adds empirical evidence from a second.

1) Joiremann et al. 2006a

In essence, this study claims that OCB shares important characteristics with social dilemmas. Hence, OCB can be understood as a special form of social dilemma. In addition, building on a social-dilemma analysis of OCB, the authors aim to show the influence of three variables on the willingness to engage in OCB (Joireman, Daniels, George-Falvy, & Kamdar, 2006).

The argument starts with the general definition that a social dilemma consists of “situations in which short-term individual and long-term collective interests are at odds” (Joireman et al. 2006, p. 1308). It is important to note that people in such situations face two kinds of conflicts, a social conflict (between individual and collective interests) and a temporal conflict (between short-term and long-term interests). Comparing the characteristics and antecedents of OCB with those of social dilemmas, the authors propose that OCB shares many similarities

as a social delayed fence. Being a special form of social dilemma, social delayed traps are situations in which a behaviour has immediate negative consequences for the self, but long-term positive consequences for the self and the organization¹³⁶. Adding the assumption that employees consider an engagement in OCB to be costly, the authors hypothesize that “OCB will be viewed as a social delayed fence involving short term costs to the employee and long-term benefits to the employee’s co-workers and organization” (Joireman et al. 2006, p. 1309).

Furthermore, Joiremann et al. propose that time horizon (i.e. expected time staying in the organization), empathy and concern with future consequences (CFC) influence willingness to engage in OCB. Or, more specifically, empathy and CFC are supposed to moderate the relationship between time horizon and OCB.

In order to test their hypotheses, the authors conducted three empirical studies. The sample for all three studies consisted of engineers from an oil refinery (n= 200). The goal of the first study was to find out whether employees really view OCB as social delayed fences. Using questionnaires, respondents are asked to judge both the short-term and the long-term benefits and costs of specific OCBs. Analysis of variance reveals that employees indeed consider OCB to be costly immediately and beneficial for the organization in the long run.

Both the second and the third study aim to test the hypotheses concerned with the influence of empathy, time horizon, and CFC on the willingness to engage in OCB. While the second study uses self-assessment of OCB, the third employs a supervisor rating of OCB. For both studies, hierarchical regression analysis confirm the proposed moderated relationships, i.e. the dispositional variables empathy and CFC moderate the relationship between the situational variable time horizon and the behavioural variable OCB.

II) Joiremann et al. 2006b

In a second study, Joiremann et al. essentially employ the same logic, with the exception that they include non-compliance behaviours (NCB)¹³⁷ as a social delayed trap and employ in-basket exercises as a research method (Joireman, Kamdar et al., 2006). In-basket exercises consist of tasks and duties written on cards to which participants have to react. On each card, three courses of action (OCB, NCB, in-role behaviour) are suggested, with OCB requiring the most time and NCB the least time. Participants have to choose one course of action and to note how costly/ beneficial they perceive the chosen action to be. Results from MBA students

¹³⁶ The opposite case would be a social delayed trap, i.e. a situation in which a behaviour has immediate positive consequences for the self, but long-term negative consequences for the self and others.

¹³⁷ NCBs include neglect, substandard performance, or active resistance.

reveal that participants consider OCB to be a social delayed fence and NCB a social delayed trap¹³⁸.

Discussion of articles I) and II)

In the context of this thesis the most important result is certainly the re-framing of OCB as social delayed fences. Besides being of theoretical interest, the empirical evidence shows that people *really* consider OCB to be a social dilemma. In addition, this finding reveals that people perform cost/benefit analyses when deciding to engage in OCB. Yet, as intriguing as these results may be, they should be further scrutinized for several reasons. Firstly, it remains to be seen whether both conditions (i.e. the existence of a social and a temporal conflict) apply to all forms of OCB or just to a few. Secondly, the focus of cost/benefit considerations may neglect other forms of motivation. A vast body of literature shows that obligation-based motivation plays an important role in decisions to engage in OCB. How are these two forms of motivation – one calculative and one norm-based – related to each other? Thirdly, the design of the study may entail framing effects; i.e. participants are “forced” to think in cost/benefit categories. In the first study, the task of rating OCBs as costly or beneficial may induce calculative thinking. And in the second study, by requiring the OCB task to take longer, the authors even determine *a priori* that OCB is more costly than in-role behaviour and NCB. Finally, in the first study, participants encounter a rather hypothetical situation. They are confronted with fictional vignettes and are supposed to mention the likelihood that they engage in OCB. It is by no means sure that participants would act the same way in reality.

¹³⁸ This study further investigates the influence of empathy, time horizon and CFC on OCB. Since we are primarily interested in the framing of OCB as social dilemmas, and since the results do not differ from the first study, we do not discuss this part of the study.

2.2.2 State of the art: comparison and implications

Having presented and discussed scholarly work regarding the narrow view of OCB's underlying motivation, this section aims to critically compare the four different strands of literature dealing with the motivational basis of OCB. In addition, we discuss implications for this thesis.

a) Comparison of the four categories of the narrow view

To gain a deeper understanding of existing research on the motivational basis of OCB, it is important to keep in mind that the four categories of the narrow view originate in different concepts and theories. Social exchange explanation, being the most prominent account of why OCB occurs, is influenced by several variations of Social Exchange Theory. These variations include the inducement-contribution framework (March&Simon 1958), psychological contracts (Rousseau 1996), and social vs. economic exchange (Blau 1964). Implicitly or explicitly, they all make reference to the norm of reciprocity (Gouldner 1960). Instead focusing on exchange relations and the norm of reciprocity, the evaluation-Impression Management explanation draws attention to research on deliberations and the subsequent behaviour of supervisors and – in a next step – of employees. Concerning supervisors, these deliberations relate to performance evaluations and the subsequent behaviour consists of reward allocations (Allen & Rush, 1998). In the case of employees, the deliberations focus on figuring out efficient ways to get rewards and the resulting behaviour is impression management (Bolino, 1999). The third strand, functional explanation, draws heavily on research on volunteering and role concepts (Penner et al., 1997). Finally, an explanation based on social delayed fences builds on research dealing with social dilemmas and inter-temporal decision making.

Bearing in mind the four strands' different roots, it comes as no surprise that the underlying motivational mechanisms are different as well. In the social exchange explanation, the basic mechanism is as follows: employees engage in OCB because they feel obliged to reciprocate inducements provided by the organization. This basic mechanism is extended in several ways. For instance, fair treatment by the supervisor is perceived as organizational support, which leads the employee to develop commitment towards the organization. A behavioural manifestation of this commitment is performing OCB (for this line of reasoning, see Moormann 1993, Moormann 1998). An alternative extension of the social exchange explanation consists of the psychological contract framework. According to this framework,

present and anticipated inducements exert different influences on OCB (Cole-Shapiro 2002). Up to now, the most researched inducement is procedural and – to a lesser extent – interactional fairness. And finally, a basic premise of all the different variants of social exchange explanations is that people act on the basis of an internalized norm of reciprocity.

For the evaluation and Impression Management framework, the following logic applies: supervisors take OCB into account when making performance appraisals and reward decisions. Employees, knowing this, engage in OCB as an impression-management tactic, because it is an efficient way to obtain rewards (e.g. promotions, pay rises). In the explanation based on functional motives, these motives drive employees to engage in OCB proactively. Once they perform OCB, role concepts like being a good organizational citizen are strengthened, which reinforces the engagement in OCB. Lastly, the social delayed fences explanation predicts that employees consider OCB to be costly for them now and beneficial for the organization in the longer run. Thus, OCB is a social delayed fence and employees are reluctant to perform OCB¹³⁹.

Considering the prevalence of internal or external motivation, social exchange builds on internal (i.e. obligation based)¹⁴⁰, evaluation and Impression Management on external (i.e. career based), functional motives on both internal and external, and social delayed fences on external motivation.

The table below summarizes important features of the existing explanations for the motivational basis of OCB.

¹³⁹ Strictly speaking, if all employees consider OCB to be a social delayed fence, no one will engage in OCB. Hence, one can say that the social delayed fence interpretation explains why people do not engage in OCB. Nevertheless it points to an underlying motivational mechanism. From a practical point of view, realizing that OCB can be perceived by employees as a social dilemma allows the design of interventions that change the underlying incentive structure.

¹⁴⁰ This refers to the application of social exchange theory in OCB research. In this case, social exchange is thought to be based on an internalized norm of reciprocity. Following this logic, employees engage in OCB because they want to reciprocate favourable treatment by the organization – even though they are not obliged to do so. In other areas of social sciences, other rules for exchange decisions are discussed. For example, Copranzano and Mitchell include reciprocity, rationality, altruism, group gain, status consistency and competition in their review of social exchange theory (Copranzano & Mitchell 2005). For a different categorization from an ethnological point of view, see Fiske (Fiske, 1992). Adopting such an extension of rules for exchange, it certainly wouldn't be correct anymore to equate social exchange theory with internal motivation. Competition and status consistency, for example, are rather externally than internally motivated in a social exchange framework.

	Social Exchange	Managerial Evaluation and Impression Management	Functional motives	Social delayed fences
Theoretical Roots	<ul style="list-style-type: none"> - Social vs. Economic Exchange - inducement-contribution framework - Norm of reciprocity - Psychological contracts - research on trust, POS, commitment and fairness 	<ul style="list-style-type: none"> - Cognitive Theories of performance evaluation - Impression Management Theories - VIE Theory 	<ul style="list-style-type: none"> - functional analysis of helping behaviour - role theories 	<ul style="list-style-type: none"> - research on social dilemmas - inter-temporal decisions
Internal/external motivation	Internal (obligation-based)	External ¹⁴¹ (career-based)	Internal and external	External
Underlying motivational mechanism	employees engage in OCB, because they feel obliged to reciprocate favourable treatment by the organization	Supervisor take into account OCB when making performance appraisal and reward decision; thus, employees engage in OCB, because this is a way to get rewards (e.g. promotion, pay rise)	Functional motives drive employees to engage in OCB proactively; performing OCB strengthens role concepts, which reinforces the engagement in OCB	Employees think OCB is costly for them now and brings advantages for the organization in the longer run; hence, OCB is a social delayed fence and employees are reluctant to perform OCB
Main contributions	notion that: <ul style="list-style-type: none"> - obligation-based motivation is important - OCB can be framed as an 	notion that: <ul style="list-style-type: none"> - OCB is sometimes rewarded - employees use OCB as an impression 	notion that: <ul style="list-style-type: none"> - OCB is both internally and externally motivated - functional motives 	notion that <ul style="list-style-type: none"> - OCB can be framed as social dilemma - cost/ benefit analysis can be

¹⁴¹ This conclusion hides the fact that Bolino proposes a framework which also includes internal motivation (Bolino 1999). However, his main contribution is to show convincingly that external motivation (in the form of impression management) is an important predictor for OCB.

	exchange relation - fairness, trust and leadership behaviour are important predictors	management tactic - external motivation matters	are important predictors - OCB can be proactive behaviour - role concepts reinforce OCB	applied to OCB
Important proponents	Organ Konovsky Coyle-Shapiro	Bolino Hui, Lam & Law	Penner Finkelstein Van Dyne	Daniels Joiremann Kamdar

Table 20: Comparison between different explanations of the motivational basis of OCB (own construction)

Considering these different explanations of the motivational basis of OCB, one might ask whether it would not be possible to integrate all these explanations into one single overall framework. And, would not Social Exchange Theory – as a broad and adaptable theory – be an ideal tool to accomplish this goal? Indeed, the Impression Management explanation can be interpreted as an exchange process: favourable appraisals and rewards are inducements, performing OCB is a contribution. This interpretation does not change if we take into account the different meanings of the behaviour (i.e. OCB) for supervisors and employees. For supervisors, having OCB-performing employees makes their job easier, whereas for employees, engaging in OCB is an impression-management tactic which can be a cheap way to gain rewards. Even social dilemmas can be framed as social exchange processes (Yamagishi & Cook 1993). And when it comes to the functional motives explanation, van Dyne has proposed a model which integrates motives, role concepts and Social Exchange Theory (van Dyne 2005). However, while subsuming different motivational explanations of OCB under one theoretical umbrella is a worthwhile undertaking and Social Exchange Theory is a hot candidate for accomplishing this, we have to be aware of several critical points regarding this solution. Firstly, all variations of Social Exchange Theory in the context of OCB research build upon the premise that people have internalized norms of reciprocity¹⁴². Yet research in psychological economics has shown that not all people have these kinds of prosocial preferences (Camerer & Fehr, 2006). Secondly, Social Exchange Theory builds on only one type of motivation, i.e. obligation-based motivation, as a form of internal motivation. But empirical research has shown that different kinds of motives are related to OCB (Rioux&Penner 2001). Thirdly, it is not sure that OCB can only emerge in social exchange relationships but not in situations characterized by economic exchange. And finally, there are

¹⁴² This statement is true for applications of SET to OCB. For a detailed discussion, see footnote 139.

some ambiguities in Social Exchange Theory itself. For instance, consider the causal issue of transactions and relationships. Do exchanges alter the nature of relationships or do relationships alter the nature of exchanges? Right now, there is evidence supporting both interpretations (Cropanzano & Mitchell, 2005).

b) Implications of the narrow view

Based on the review of the state of the art in the chapter above, this section presents some implications for the development and subsequent testing of hypotheses in the next chapter.

1) Behaviour is motivated, but behaviour is conceptually different from motivation

In studying OCB, it is important to distinguish OCB from its motivational basis. The term OCB refers to a specific set of behaviours¹⁴³, but it does not include any statement about how these behaviours are motivated. Generalized compliance as a specific form of OCB, for example, may be motivated by fear of being punished or by internalized norms. Some of the existing literature in the field of OCB does not make this distinction explicit. However, as the review of the narrow view reveals, each framework which investigates the motivational basis of OCB in some depth differentiates between behaviour and motivation. Why is it important to make such a distinction? Because only by making this distinction are we able to both understand and influence OCB in a systematic way. Since the OCB construct contains no statement concerning the underlying motivational forces, we have to introduce motivation as an additional and conceptually different construct if we want to understand the motivational basis of OCB¹⁴⁴. And if motivation really is conceptually distinct from OCB, we also have to include both constructs in the study of influencing OCB. To clarify this point, let us take an example: the head of a research and development department considers helping behaviour and the knowledge-sharing it entails to be a crucial part of the innovation process. If helping behaviour is internally motivated, an appropriate measure for fostering OCB would be to give employees the freedom to work with various development teams and to form informal knowledge networks. However, if helping behaviour is externally motivated, helping behaviour may well be included as a goal in a management-by-objectives system.

¹⁴³ Or, to put it more technically, OCB is a latent variable representing a specific set of behaviours.

¹⁴⁴ More technically, OCB and Motivation are two conceptually different latent constructs.

Furthermore, the management-by-objectives system may change the underlying motivation and as a consequence alter the observed behavioural patterns¹⁴⁵.

This line of reasoning is also summarized in the following quote by Organ: “. . . our contention is that understanding the proximal motive for OCB is not essential in our appreciation of it, nor to our recognition, definition, or understanding of it. In the definition of OCB, then, that we presented earlier in this chapter, we excluded from it any qualifier about motive” (Organ et al. 2006, p. 7).

Therefore, OCB and the motivation driving OCB are two conceptually distinct constructs which have to be modelled by two different latent variables.

2) The motivational basis of OCB: a land (still) to discover

The motivational basis of OCB is still under-researched. Several observations support this notion. Firstly, the amount of research concentrating on the narrow view is – compared to the broad view – relatively small. Whereas the broad view contains enough empirical papers for several large-scale meta-analyses, the vast majority of papers belonging to the narrow view could be presented and discussed in some detail in this thesis. Secondly, several leading scholars in the field emphasize the need to further investigate the motivational basis of OCB (e.g. Organ 2006). Finally, as our discussion of the state of the art reveals, different theoretical explanations exist. While these theories have some common ground, they also differ in important points. For example, the internal, obligation-based motivation put forth by social-exchange explanations is at odds with external, career-based motives proposed by the evaluation-Impression Management framework or the calculative, external motivation emphasized in the social delayed fence approach.

Therefore, a relatively small body of research and –at least- partially competing theories encourage further investigating the motivational basis of OCB.

Based on these implications, we develop and empirically in the next chapter test some hypotheses concerning the motivational basis of OCB.

¹⁴⁵ More technically, motivation is an important mediator between the Management by Objectives System and OCB.

Synopsis of chapter 2.2.

Research concerned with motivation and OCB can be classified into a broad view, which encompasses studies covering all sorts of potentially motivating antecedents, and a narrow view, which includes studies that explicitly model the motivational mechanisms underlying OCB. The narrow view itself consists of four strands of literature: the social exchange explanation, which focuses on employees reciprocating favourable treatment by the organization; the evaluation-Impression Management explanation, which stresses supervisor's reward decisions and employees' impression-management motives; the functional motives explanation, which proposes a mix of internal and external motives, and finally the social delayed fence explanation, which interprets OCB as social dilemmas. It follows from reviewing the literature that OCB as behaviour should be distinguished from its underlying motivation, that the motivational basis of OCB is still under-researched, and that a mix of internal and external motives are likely to play a vital role in explaining the motivational mechanisms leading to OCB.

2.3 Own motivational framework and hypotheses

Building on the conclusion that a motives-based approach may shed additional light on the motivational basis of OCB, this section develops and substantiates a motivational framework based on motives. Subsequently, drawing on this framework, hypotheses linking organizational context, motives and OCB are proposed. The chapter opens by commenting on the theoretical and managerial background of the motivational framework (chapter 2.3.1), proceeds by explaining the framework (chapter 2.3.2), introduces the distinction between OCBI (Organizational Citizenship Behaviour directed at individuals) and OCBO (Organizational Citizenship Behaviour directed at the organization as an abstract entity) (chapter 2.3.3) and closes by proposing hypotheses (chapter 2.3.4). The figure below visualizes this chapter's structure.

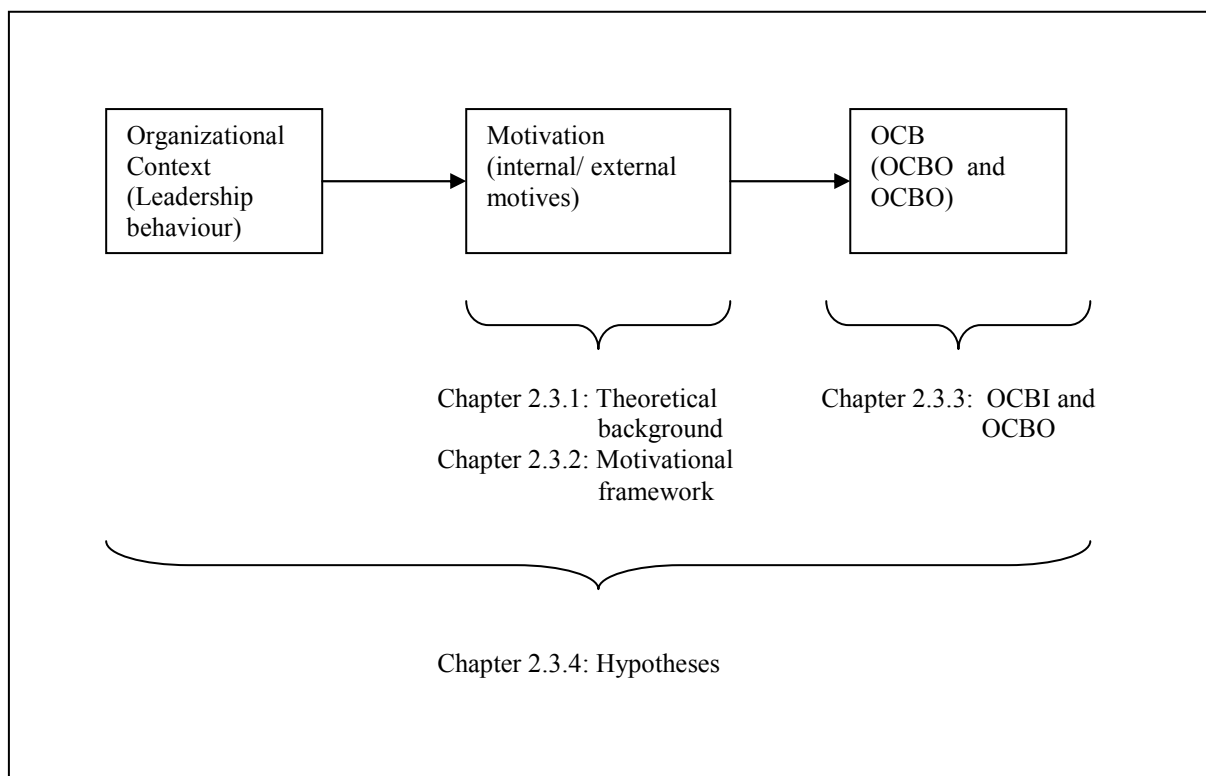


Figure 13: Structure of chapter 2.3

2.3.1 Theoretical and managerial background

In the previous chapter, the argument that motives matter is derived from a review of existing literature on the topic. Yet - before proceeding to the discussion of the theoretical roots - it is important to pay attention to another category of reasons underscoring the relevance of motives. This category is concerned with effective ways to manage OCB. It starts with the notion, that if OCB really enhances organizational performance, the question of how to influence OCB becomes relevant. We argue that the understanding of OCB's motivational basis allows managing OCB in a more effective way. *First*, the choice of adequate incentives to foster OCB depends on the prevalence of the underlying motives. For example, if innovative behaviour is internally motivated, it is suitable to create an inspiring work environment by allowing people to spend time for projects they initiate themselves. However, if innovative behaviour is based on external motivation, it seems adequate to explicitly reward new ideas. *Second*, the motivational basis may alter after introducing new incentives. Incentives may either reduce internal motivation, an effect which is commonly known as "motivational crowding out" or they may enhance internal motivation, which is called "motivational crowding in" (Deci, Koestner, & Ryan, 1999). Whether such a crowding occurs is influenced heavily by attribution processes. For example, if employees consider a Management by Objectives System to be controlling, crowding out is likely to occur. *Third*, different motives may lead to differences in how OCB is performed. OCB which is based on internal motivation may occur even when nobody is watching or no reward is offered. Furthermore, internally motivated behaviour is often characterized by a high degree of persistence (Bolino 1999). *Fourth*, different motives may lead to different attributions of people who observe this behaviour (i.e. intentions matter). These attributions may in turn influence the frequency of OCB performed by these people. For example, if employees consider their co-worker's OCB to be externally motivated, they are likely to reduce their own level of OCB (Allen & Rush, 1998; Tepper et al., 2004). *Finally*, in influencing OCB, motives are likely to interact with situational antecedents. For instance, motives may moderate the relationship between procedural fairness and OCB in the sense that this relationship will be stronger for those employees having strong reciprocity norms than for those having weak reciprocity norms.

Thus, *the understanding of the motivational basis of OCB allows a more precise governing of contextual performance*¹⁴⁶.

¹⁴⁶ More technically: Motivation is an important mediator.

Having stated the theoretical and practical importance to investigate the role of motives in driving OCB, we now move on to discuss the theoretical roots of the motivational framework exposed in the next section. These roots include the four strands of the narrow view on OCB's motivational basis and insights from self-determination theory.

a) Functional motives approach

One of the central tenets of the functional motives explanation is that two persons engaged in the same behaviour do not necessarily have the same motives and a person's behaviour can be driven by several motives simultaneously. This tenet corresponds with results from the literary review in chapter 2.2. Hence, building on the functional motive approach seems to be a good starting point. In addition, this approach comprises some features that make it well suited for our modelling purposes. *First*, it is a motive based approach which has been tested empirically in the realm of OCB (Rioux and Penner 2001, Finkelstein 2006). Thus, we have a tested, motive-based model we can build upon. *Second*, the results support the notion that motives matter. This backs our belief that we're going to develop a model that has explanatory power. *Third*, this approach proposes – albeit without theoretical grounding – a mixture of internal and external motives which can serve as a repository of potentially relevant motives. *Finally*, the functional motives approach seems to have potential for further elaborations. For instance, Van Dyne, who has developed a conceptual model based on motives, states:

“we have described a preliminary model ...we suggest that more complex approaches would be interesting material for future research”(Van Dyne & Farmer, 2005, p.200).

Or, in a similar vein, Rioux and Penner state that

“... it remains for subsequent research to determine the practical value of a motivational approach to OCB. We would argue, however, that the results of the present study suggest that such an effort might further our understanding of OCB and increase its frequency among employees of large organizations” (Rioux & Penner, 2001, p. 1313).

b) Self-determination theory (Self-Determination Theory)

In addition to functional motives analysis, Self-Determination Theory is used to develop the motivational framework. But why do we need another theory? Being interested in a parsimonious model of OCB's motivational basis, we necessarily have to restrict the number of theories employed¹⁴⁷. While this notion is certainly true, the added value provided by Self-Determination Theory outweighs these concerns. *First*, Self-Determination Theory includes statements about both content and process of motivation¹⁴⁸. *Second*, the theory comprises internal and external motives alike¹⁴⁹. *Third*, the theory prominently deals with internal motivation in the sense of enjoyment felt while performing a task. This kind of motivations hasn't played a role in OCB research yet and is included in our motivational framework subsequently. *Forth*, Self-Determination Theory is empirically tested in diverse setting – also in work organizations – and can therefore inform our study in both theoretical and methodical respects. *Fifth*, Self-Determination Theory offers an explanation for the internalization of values and norms. This contrasts with other theories like standard economics, which treat internalized norms as given. Finally, Self-Determination Theory proposes a self-determination continuum, which allows modelling discrete steps from internal to external motivation. This is extremely valuable, because it offers a more fine-grained categorization than the internal-external dichotomy. In addition, it imposes a theoretically derived order on an otherwise loose set of motives and allows modelling internalization.

This self-determination continuum is depicted below; followed by a short explanation¹⁵⁰.

¹⁴⁷ The reasons we are interested in a parsimonious model are both theoretical and practical. From a theoretical point of view a simple model is usually preferred to a more complex model if both models explain empirical phenomena equally well (i.e. both have the same overall model fit). From a practical point of view, a parsimonious model makes it easier to develop and to evaluate managerial interventions.

¹⁴⁸ Motivation theories can be divided in content theories, process theories and theories combining both elements. For the purpose of this thesis, the motivational basis of OCB is to be modelled using both content and process elements. The content element is necessary to develop a differentiated typology of motives while the process element is essential in analysing the effects of incentives on OCB.

There are, of course, other motivational theories that combine both process and content. Self Determination Theory has the advantage of having developed a differentiated typology of internal and external motivation. Furthermore, it has been tested widely in different contexts and allows analysing the dynamic interplay between internal and external motivation.

¹⁴⁹ As we have seen, the discussion about the relative importance of external and internal motives is a recurrent topic in OCB research. In order to address this discussion, it is essential to include both categories.

¹⁵⁰ The following explanations are based on (Gagné & Deci, 2005).

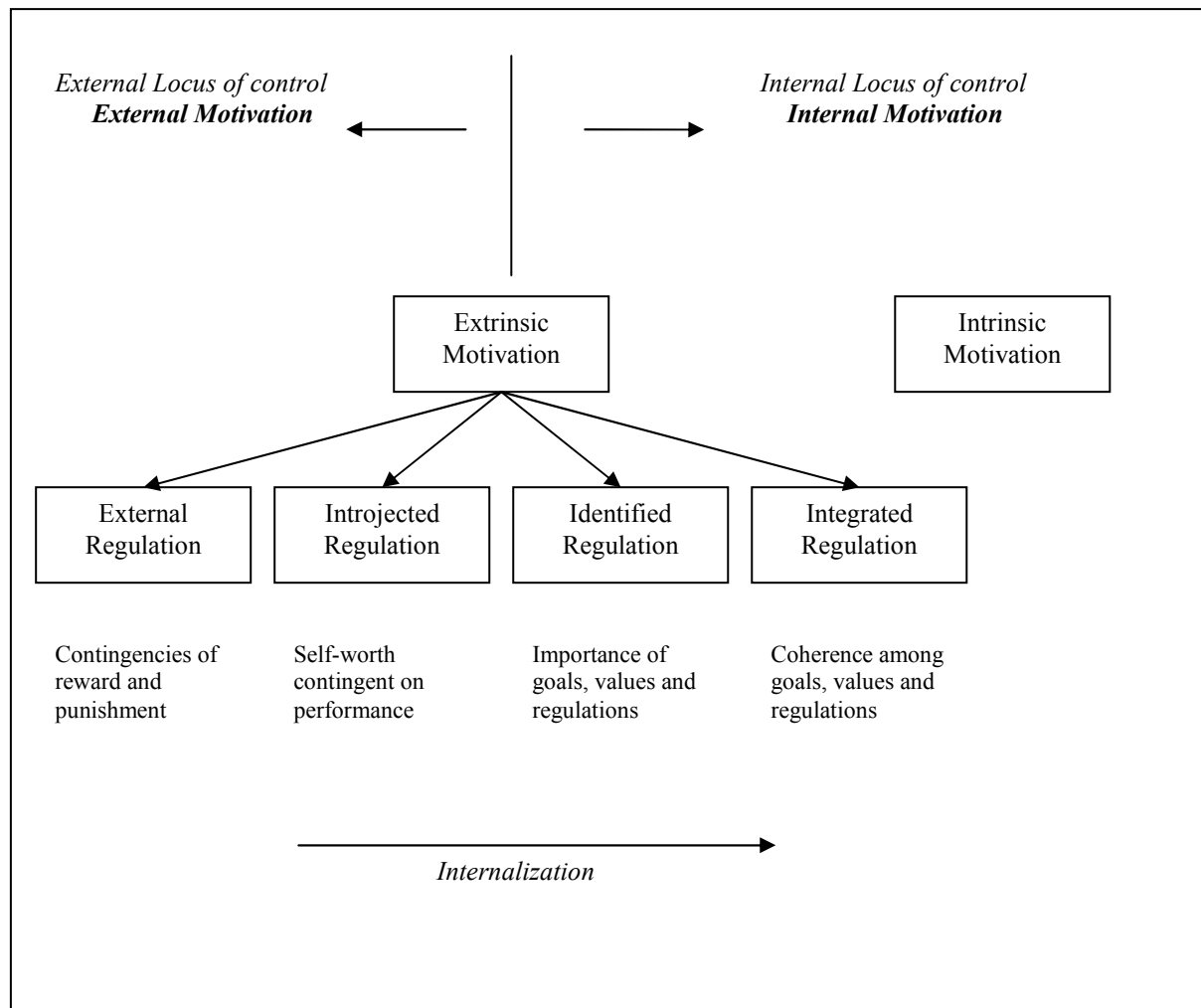


Figure 13: The self-determination continuum, (adapted from Gagné & Deci, 2005)

In order to grasp the meaning of the self-determination continuum, it is useful to put it into the broader context of the theory. Self-Determination Theory assumes that people have the basic need to act internally. Aspects of the social context like job design or positive feedback nourish this basic need which leads to internal motivation. In this case, the actor feels that he can choose his actions freely, i.e. they have an internal locus of control. In contrast, context factors like tangible rewards can undermine the basic need of autonomy, resulting in external motivation. With external motivation, people think they cannot choose their actions freely, i.e. they have an external locus of control.

People, who have a high internal locus of control, are internally motivated, i.e. they perform an activity, because it is enjoyable. At the other extreme, people who have high levels of external locus of control are supposed to be externally motivated, i.e. they perform an activity, because they are interested in some consequences of that activity (e.g. rewards, avoidance of punishment), but not in the activity itself.

This basic structure is refined in two respects. *First*, between “pure” external motivation and “pure” internal motivation there exist three “intermediate” forms of motivation. They range from purely external, (i.e. external regulation), via mostly external (i.e. introjected motivation) and mostly internal (i.e. identified regulation), to almost internal (i.e. integrated motivation). Or to put it differently: they are characterized by an increasing level of self-determination (that’s why this succession is called self-determination continuum). In original terminology of Self-Determination Theory, “pure” internal motivation is called intrinsic motivation and all other forms are labelled extrinsic motivation. However, we do not employ this terminology, because it could suggest that obligation based motivation has a higher external than internal locus of control (which is definitively not the case)¹⁵¹.

Second, favourable context factors and the need to act internally can induce people to take in values, attitudes or regulatory structures. In this process- which is called internalization- external regulation is transformed into internal regulation, resulting in higher levels of self-determination. Thus, the self-determination continuum can also be thought of as measuring the degree of internalization¹⁵².

To conclude, proponents of Self-Determination Theory like Deci have repeatedly called for an application of Self-Determination Theory in the field of OCB:

“Although there is relatively little work relating Self-Determination Theory concepts to OCB, evidence does indicate that internal motivation,... would also predict OCB ... By using Self-Determination Theory, the predictions could become broader, more refined, and better integrated than those from previous studies” (Gagné&Deci 2005, p.351).

c) Other strands

Compared to the functional motive approach, the other three strands have secondary influence in developing the motivational framework. From Impression Management comes the finding, that OCB can have external, career based motivation. Yet, this kind of motivation has already been integrated into the functional motive approach. Social Exchange Theory, drawing on the norm of reciprocity, points to the importance of internal, obligation based motivation. Finally,

¹⁵¹ In the logic of Deci, all activities that are not performed out of pleasure for the activity itself have an element of external motivation. While this reasoning may have dogmatic stringency, we think that the categories “internal” and “external” are more suited for the present thesis. Hence, those motivational forms that are characterized by a higher external than internal locus of control are called “external motivation” and those motivational forms marked by a higher internal than external locus of control are termed “internal motivation”.

¹⁵² This account of Self-Determination Theory focuses on the most basic features and leaves out some important parts, e.g. individual differences in causality orientations or two additional basic needs: competence and relatedness. However, the exposed parts of the theory are enough to develop and motivate the motivational framework. For a more detailed account on Self-Determination Theory, see Gagné&Deci (2005).

the socially delayed fences approach doesn't directly influence the framework, because it rather explains why people do *not* engage in OCB.

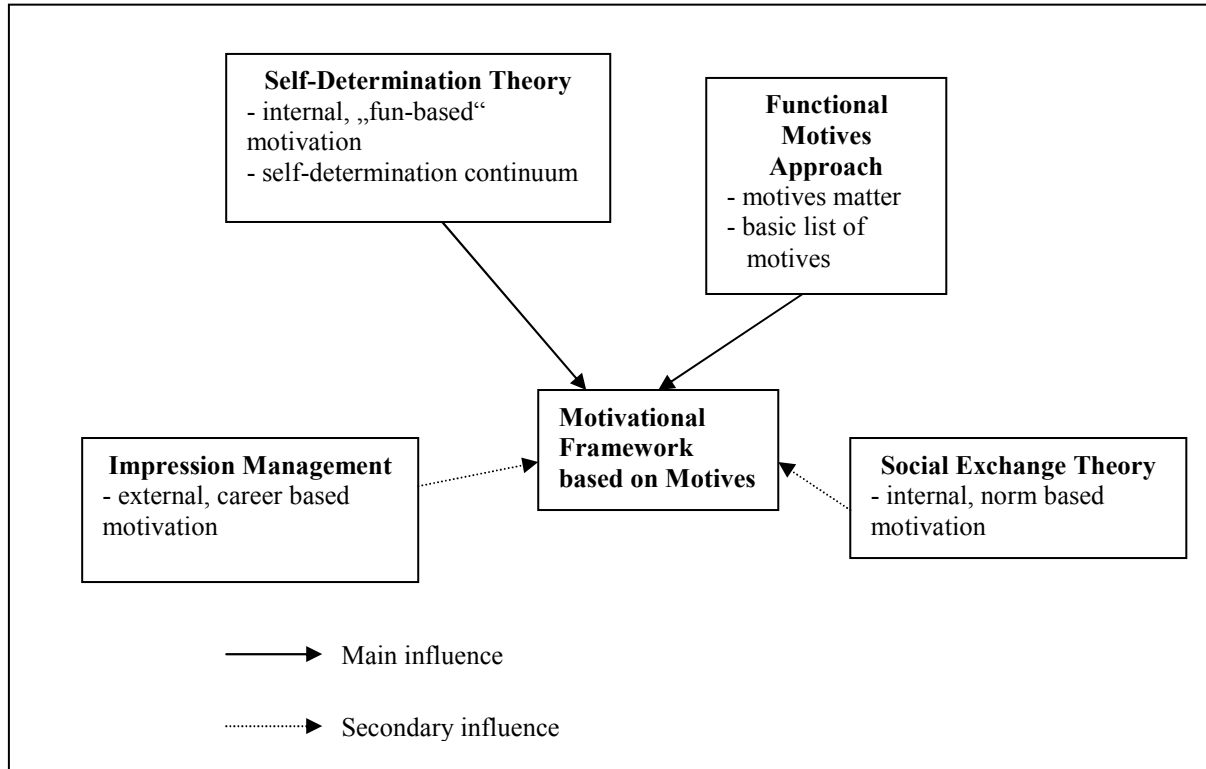


Figure 14: Influences on the Motivational Framework

As mentioned earlier, the self-determination continuum allows ordering the different theoretical explanations of the narrow view of the motivational basis of OCB. This ordering does not imply that we treat these theories as a homogenous group. For instance, social exchange theory and functional motives theory differ in many respects. Rather, the ordering is based on one specific criterion; i.e. if the theory assumes a prevalence of internal or external motives.

Impression Management emphasizing career motivation focuses on external motivation and represents the left side of the continuum. Social Exchange Theory, by contrast, stresses the importance of integrated norms of reciprocity. Hence, it can be located on the right side (i.e. where internal motivation is high) of the self-determination continuum. Functional motives approach differs from the other two theories because it postulates both internal and external motives for OCB. Thus, functional motives theory can be attributed to several places on the

continuum¹⁵³. The following figure visualizes the ordering of motivational theories on the self-determination continuum.

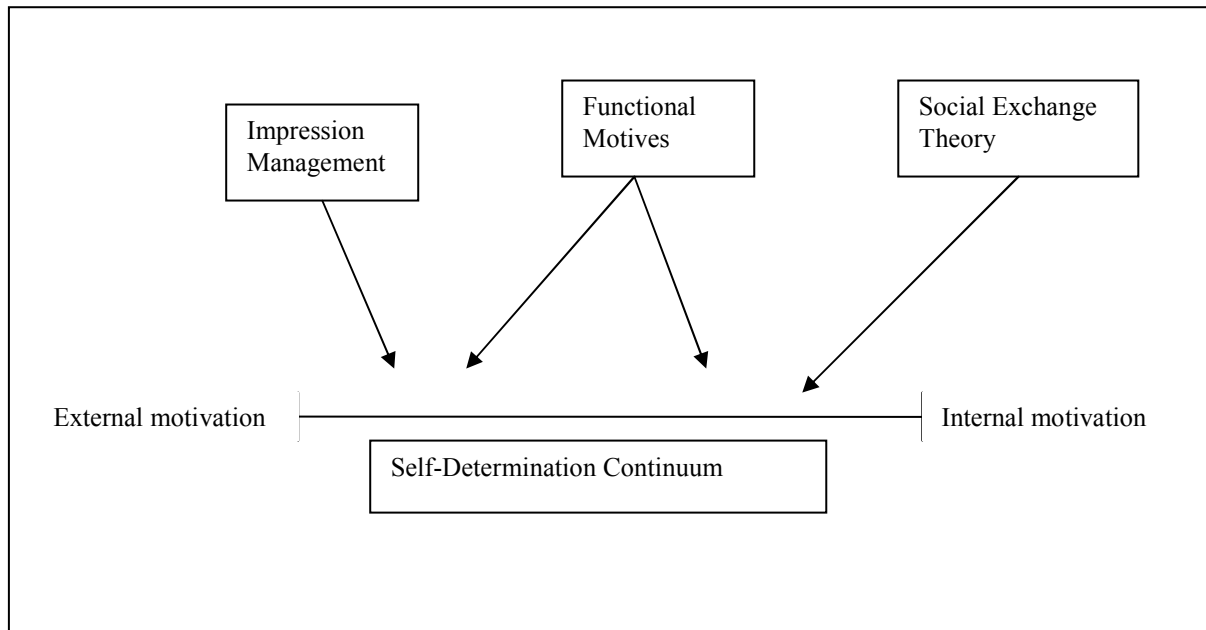


Figure 15: Ordering of motivational theories on the self-determination continuum

2.3.2 Motivational framework

The main organizing principle of the motivational framework consists of the self-determination continuum¹⁵⁴. Based on the five motivational forms proposed by Self-Determination Theory (i.e. external, introjected, identified, integrated regulation and intrinsic motivation), we propose two types of internal motivation and three types of external motivation as the motivational basis of OCB. Yet, specific content for each type is derived by referring to the motivational theories mentioned in chapter 2.3.1. For example, Social Exchange Theory, Functional Motives Theory and Self-Determination Theory all mention internalized norms as an internal motivation to engage in OCB. Therefore, we propose that a type of internal motivation called “obligation based motivation” plays an important role in

¹⁵³ Functional Motive Theory postulates several internal and external motives. However, it doesn’t say anything about the ordering of these motives.

¹⁵⁴ It is important to note that whereas Self-Determination Theory is suitable as an organizing principle, it is difficult to compare this theory directly to theories of the narrow view. Why is this so? Self-determination theory is a theory which offers sophisticated explanations concerning content (e.g. motives) and processes (e.g. internalization, crowding) of human motivation. By contrast, impression management and social exchange theory are not designed to explain motivational processes in detail. They rather give hints to underlying motives which can be compared to other theories of human motivation (like Self-Determination Theory).

motivating OCB. Applying the same logic results in in two internal (fun based and obligation based motivation) and three external (career based, avoidance based and profiling based) motivational types. The figure below visualizes the mapping of theories of the narrow view onto the motivational continuum and the subsequent derivation of motivational types. Each of these motivational types is described in greater detail in the remainder of this section.

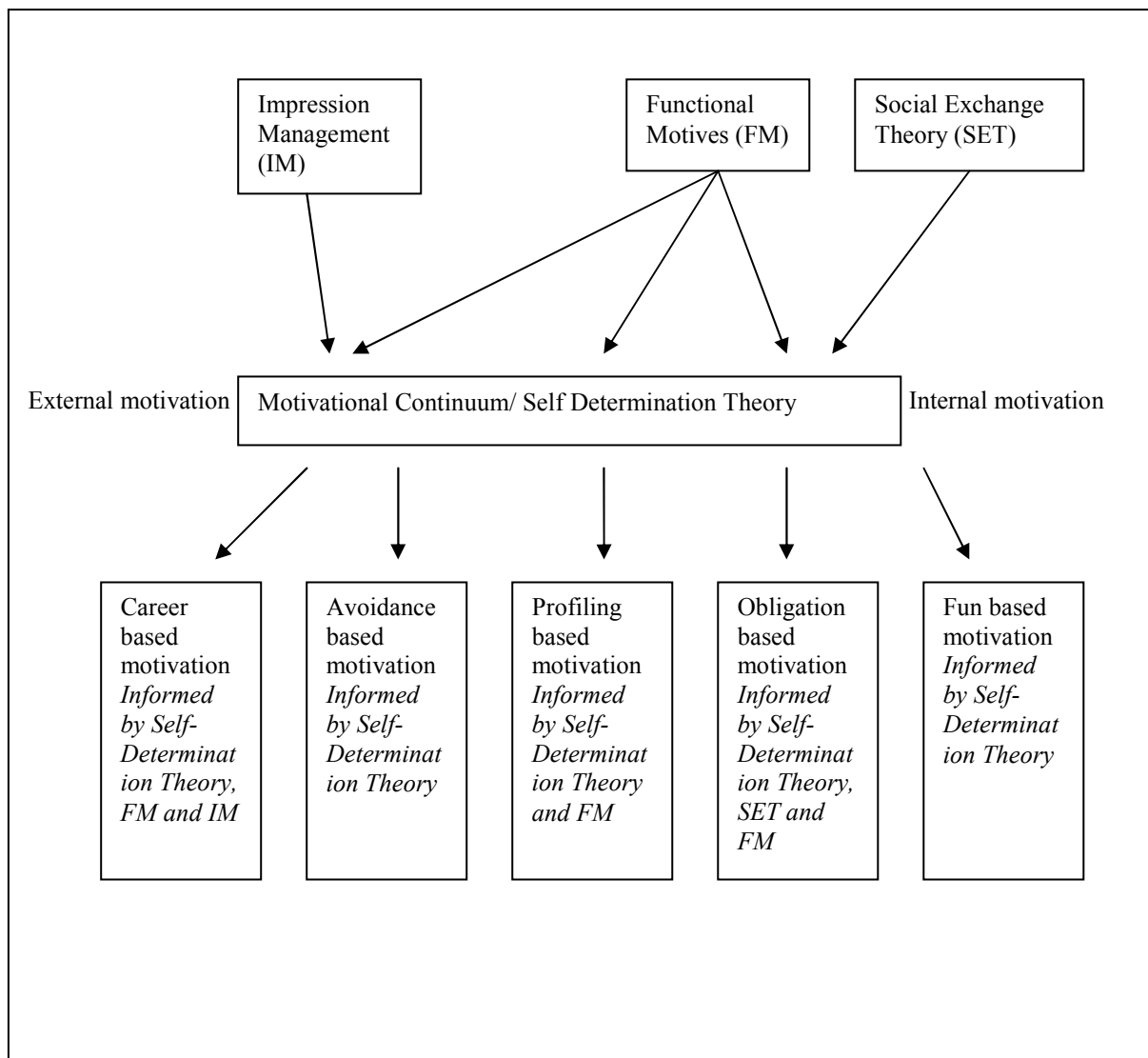


Figure 16: Theoretical basis of the motivational framework

In order to give a clear idea about the meaning of each type, items from the questionnaire are included in the subsequent description of the five motives types. Measurement issues are strongly influenced by Ryan and Connel (Ryan & Connell, 1989). These authors measure different types of motivation by listing in a questionnaire concrete behaviour episodes and adding for each episode several reasons why someone might perform the behaviour.

Participants are asked to indicate to which degree each reason fits to them. Although not referring to each other, Rioux and Penner measure motives the same way (Rioux&Penner 2001). The only difference is in terminology; Ryan and Connel use “reason to act” while Rioux and Penner refer to “motives”. Thus, the reasons to act in Self-Determination Theory seem to be similar to motives in the functional approach¹⁵⁵.

In our framework, the two forms of internal motivation are:

“Fun based motivation”

People are internally motivated if they enjoy the activity they are actually doing. In Self-Determination Theory, this is the most internal form of motivation. In the subsequent discussion, this motivation is called “fun based motivation”. With the exception of Rioux and Penner, we are aware of no published research on OCB that measures this kind of motivation (Rioux & Penner 2001)¹⁵⁶. This is interesting, because many researchers assume that OCB is internally motivated. These researchers seem to assume that in the case of OCB, internal motivation means following an internalized norm. Yet, performing OCB because one likes the activity is no preposterous idea. For example, an employee may enjoy the activity of helping his co-worker.

Fun based motivation is measured with item like: “I listen when someone in my work group has a problem,because I enjoy doing it”

“Obligation based motivation”

A Person is also internally motivated, if she performs an action because she is convinced that it is the right thing to do. Or to put it otherwise, she is acting according to norms she has internalized. In Self-Determination Theory, this type of motivation corresponds to integrated regulation which we consider to be a part of internal motivation. Social Exchange Theory also emphasises the relevance of internalized norms for OCB. According to Social Exchange

¹⁵⁵ One difference between motives and reasons to act might be their stability. While Rioux and Penner treat motives like stable personality traits, Self-Determination Theory supposes reasons to act can change through internalization.

¹⁵⁶ However, Rioux and Penner measure fun based motivation together with other types of motivation in their “Prosocial Values” subscale. Consequently, they cannot draw any conclusions regarding the relevance of fun-based motivation.

Theory, people feel obliged to perform OCB as a reaction to favourable treatment, because they have internalized the norm of reciprocity. Finally, the functional motives approach takes internalized norms into account when measuring prosocial values. Considering the vast amount of theoretical reasoning and empirical evidence; we include this type of internal motivation into our framework and term it “obligation based motivation”. This kind of motivation is measured with items like “I follow rules and instructions strictly,...because I think it’s important”.

When it comes to external motivation, we propose three different forms:

“Profiling based motivation”

In organizational settings it makes sense to distinguish the influence of the supervisor from the influence of the co-worker. Considering OCB, this distinction is especially important. Because OCB is not required, the influence from co-workers may be much greater than those of the supervisors. Assuming that OCB is valued by co-workers, performing OCB may be a way to gain a favourable standing within the group. Both Self-Determination Theory and functional motives approach recognize this possibility. In Self-Determination Theory, this type of motivation is categorized as external motivation, or more specifically as introjected regulation. Functional motives approach measures this motive in the impression management scale. Considering the prevalence of team work in organization, this type of motivation is likely to play a role in explaining the motivational basis of OCB. Subsequently, it is called profiling based motivation and is measured with items like: “I give advice to my colleagues, because I want to have a good standing in the group.”

“Avoidance based motivation”

People in organizations may engage in OCB, because they want to avoid problems. According to Self-Determination Theory, avoiding problems qualifies as external motivation. But why it is reasonable for those not performing OCB to expect to get problems in the form of punishment? Results from Behavioral Economics provide a convincing explanation. Co-workers who have internalized norms of reciprocity, are willing to take personal costs to punish those who refrain from contributing to a common good like OCB. Those who do not contribute realize this credible threat. As a consequence, they engage in OCB to avoid punishment. Because the use of permanent work groups in our sample and because it could

provide field-evidence for experimental results of Behavioral Economics, we include this type of motivation and call it “avoidance based motivation”. It is measured with items like: “I follow rules and instructions strictly, because I’d get trouble otherwise”.

“Career based motivation”

The main insight from the impression management approach is that employees may engage in Impression Management tactics in order to get rewards. First proposed by Bolino, this motive is included and subsequently empirically tested in the functional motive approach (Bolino 1999). This motive is included for two reasons. First, considering the empirical evidence that supervisors take into account OCB when evaluating and promoting employees, these employees have a strong incentive to engage in Impression Management. Second, there is a paucity of empirical work measuring this type of external motivation. In Self-Determination Theory, this type of motivation qualifies as external regulation and is subsequently called “career based motivation”. Items for this kind of motivation include: “I give my colleagues valuable advice, because it helps me to get promoted”.

The proposed motivational framework is based on Self-Determination Theory, Functional Motives Theory, Social Exchange Theory and Impression Management and consists of five motives: fun based motivation and obligation based motivation as subcategories of internal motivation and profiling based motivation, avoidance based motivation and career based motivation as subcategories of external motivation.

2.3.3 OCBI and OCBO

As discussed at length in chapter 2.1.1, several – in some respects conflicting – conceptualizations of OCB exist in the literature. At the end of chapter 2.1.1 we argued in favour of Organ’s first conceptualization and proposed an adapted version of Organ’s original definition. This adapted definition does not specify any specific, measurable behaviour. On a theoretical plane, not including specific behaviours in the definition of OCB enhances generalization, because changing role borders or cultural contingencies prevent behaviour like “helping” to meet the definitional requirements of OCB in all circumstances. On an empirical plane, however, we have to decide which specific (i.e. observable) behaviours we consider to be OCB. This is because people engaging in OCB perform concrete actions (and not abstract

definitional criteria) like lending a co-worker a helping hand. While these actions may meet abstract criteria like “discretionary” or “supports the effective functioning of the organization”, they can’t be derived deductively from our definition of OCB. Rather, we have to analyse whether specific behavioural episodes meet the definitional criteria in a given (organizational) situation. Hence, an empirical investigation of OCB requires the specification of observable sub-categories (so called “first order constructs”) of OCB.

For the empirical part of this thesis, we adhere to an operationalization of OCB which consists of two observable first-order constructs and which was first proposed by Anderson and Williams (Anderson & Williams 1991). In their article, the authors aim to show empirically that extra-role behaviour can be distinguished from in-role behaviour and that attitudinal antecedents (i.e. satisfaction and commitment) differ in their impact on each of two sub-constructs of OCB. In the first step, Williams & Anderson introduced two behavioural categories: OCBO, i.e. behaviours that benefit the organization in general (most prominently: adherence to informal rules), and OCBI, i.e. behaviours that immediately benefit specific individuals (most prominently: helping coworkers)¹⁵⁷. Factor analysis of performance data provided by 127 supervisors revealed a clear-cut factor structure with three factors having eigenvalues greater than one. Considering the items’ content, these three factors can neatly be labelled In Role Behaviour, OCBI and OCBO. In addition, hierarchical regression shows that external job recognition (e.g. high pay) is more strongly related to OCBO than to OCBI and that internal job recognition (e.g. challenging task) has a greater influence on OCBI than on OCBO. Thus, OCBI and OCBO not only have discriminant validity; they also have different attitudinal antecedents.

Why do we consider this OCBI-OCBO typology to be the most suitable choice for this thesis? *Firstly*, Williams & Anderson explicitly refer to Organ’s original definition and discuss the relations between “altruism” and OCBI and between “compliance” and OCBO. Since this thesis also builds on an (adapted) version of Organ’s original definition, OCBI and OCBO fit into the conceptualization put forth in this thesis. *Secondly*, the distinction between OCBI and OCBO is a consistent pattern in the literature. Since many empirical studies use this categorization, results from this thesis are in line and can be compared with a broad stream of empirical research. *Thirdly*, according to meta-analyses, the two-factor structure corresponding to OCBI and OCBO is empirically well grounded (P. M. Podsakoff et al.,

¹⁵⁷ The authors claim that “empirical and conceptual work in this area suggests two broad categories” (Williams & Anderson 1991, p.601). However, they do not specify the literature they refer to. Furthermore, it is not clear whether OCBI and OCBO cover the whole range of OCB behaviours. Since performance measures in this study are based on supervisor ratings, it remains to be seen whether self and peer evaluation produce the same factor structure.

2000). *Fourthly*, William & Anderson's definitions of OCBO and OCBI do not make assumptions regarding the motivational basis of OCB. Since we argue in this thesis that OCB and its underlying motivation should be modelled separately, this fits our purpose well. *Fifthly*, there is ample empirical evidence for differences in nomological networks of antecedents and consequences across OCBI and OCBO (Borman et al., 2001; Masterson, Lewis, Goldman, & Taylor, 2000; McNeely & Meglino, 1994). These differences not only have theoretical but also practical implications, because they imply that OCBI and OCBO should be influenced in different ways. *Sixthly*, working with two second-order constructs provides a fruitful middle ground between over-specification and over-generalization. For many jobs, OCB as a general construct covers quite a diverse behavioural domain. As a consequence, important insights resulting from this diversity may be lost if we model OCB as a general first-order construct. Employing too many sub-constructs, on the other hand, may produce results which are very detailed but irrelevant from a practitioner's perspective. *Finally*, OCBI and OCBO fit the sample used in this thesis neatly. In a pharmaceutical production site, which has a team-based organization, both conscientiousness as a typical form of OCBO and helping as a typical form of OCBI are important forms of OCB.

In the empirical part of this thesis, we measure OCB in the form of OCBI (which equals "helping behaviour") and OCBO (which equals "compliance behaviour").

2.3.4 Hypotheses

According to our literature review of the motivational basis of OCB, many scholars assume that OCB is influenced by internal motivation. However, some researches challenge this assumption and consider OCB to be driven by external motivation. Who tells the truth? Considering our motivational framework, motivation is conceptually distinct from OCB and can take the form of either internal or external motivation. Therefore, it is reasonable to assume that on an aggregate level both types of motivation do coexist.

But what kind of motivation is more important? We argue that, on average, internal motivation is more important than external motivation. *First*, typical behavioural representations of OCB are behaviours which are often internally motivated in different contexts. Helping behaviour, for example, has been shown to be internally motivated in both laboratory and field studies. Therefore, it seems to be a reasonable assumption that helping behaviour is predominantly based on internal motivation in an organizational context as well.

Second, OCB are behaviours that are not required, spontaneous, sometimes not observed, difficult to measure and therefore hard to enforce. The notion that OCB is neither formally nor informally required is part of the construct's definition. It follows from this notion that OCB is spontaneous, because behaviour that has positive effects for the organizations (another definitional requirement of OCB) and that is performed on a regular basis, is likely to be contracted in the future. Since OCB often occurs in absence of a supervisor and sometimes even in absence of coworkers, it is not easily observed. Finally, - besides going often unnoticed and being spontaneous- OCB is difficult to measure because the quality of the behaviour is often more important than the quantity of its occurrence. Consider, for example, the case of helping: the improvement of a problematic state with the recipient is at least as important as the sheer amount of helping. As a result of these considerations, it is hard to enforce OCB. A behaviour which occurs spontaneously, goes often unnoticed, is difficult to measure and is difficult to enforce is probably driven more by internal motivation than by external motivation.

Since these considerations apply to both OCBI and OCBO, we have no reason to assume that the motivational framework explains more variance in OCBI than in OCBO (and vice versa) or that internal motivation is more relevant for OCBI than for OCBO (and vice versa)¹⁵⁸.

Measured on an aggregate level, internal and external motives coexist. However, internal motives tend to be more important than external motives in driving OCB.

Thus, we state the following hypotheses

H1: OCBI is motivated by both internal and external motives

H2: OCBO is motivated by both internal and external motives

H3: for OCBI, internal motivation is more important than external motivation

H4: for OCBO, internal motivation is more important than external motivation

Up to now, we have assumed that motivational forces influence OCBI and OCBO in the same way. Some scholars agree and state that OCB is a clear-cut construct which has one single motivational basis. Yet others propose a more detailed conceptualization to capture different

¹⁵⁸ In this section, helping is the behavioural manifestation of OCBI and conscientiousness the behavioural manifestation of OCBO. We'll use the terms helping and OCBI as well as conscientiousness interchangeably throughout this chapter.

influence patterns of the same antecedent. In the context of this thesis, the problem can be specified in the following way: either one overall motivational basis of OCB can be determined in each specific situation, or the motivational basis differs significantly for different subtypes of OCB such as OCBI and OCBO¹⁵⁹. It is important to note that we are interested here in the motivational basis as an aggregation of different individual motivations. Of course, on an individual level, OCB and each of its sub-constructs can be motivated either internally or externally. However, the aggregation of individual motivations yields a specific distribution which is labelled motivational basis in the present context.

The aggregation problem has important practical implications. Consider, as an instance, a quality problem in a pharmaceutical firm. The production teams are supposed to foster interpersonal helping and compliance to quality rules so as to enhance quality. If the motivational basis is the same for both kinds of behaviours, it is reasonable to employ the same mix of incentives to enhance both helping and compliance. However, if the motivational basis of interpersonal helping is different from the motivational basis of conscientiousness, it makes sense to use different influence channels to foster each of these behaviours.

As discussed in more detail in chapter 3.1, OCB as a latent construct covers many different kinds of behaviours. According to the typology employed in this thesis, some of these behaviours are directed at an individual person (i.e. OCBI) while others are directed at the organisation as an abstract entity (OCBO). Since these subtypes differ considerably, and since they cover a broad range of behaviours shown in organizational contexts, it is reasonable to propose that OCBI and OCBO have different motivational bases¹⁶⁰.

Thus, Different subtypes of OCB (i.e. OCBI and OCBO) have different motivational bases (for the same antecedent)

To derive specific statements concerning differences in the motivational bases of OCBI and OCBO, we refer to the motivational framework developed in the previous section.

Thus, we state the following hypotheses

¹⁵⁹ This does not imply that the motivational basis does not differ if other antecedents change.

¹⁶⁰ Of course, we could argue that even OCBI (or OCBO) are too broad constructs to have the same motivational basis. However, we are focussing on the difference between OCB and OCBI/OCBO. Firstly, the discussion in the literature deals primarily with question whether OCB represents an adequate level of aggregation (and not whether OCBI/OCBO are adequate level of aggregation). Secondly, the specific behaviours which are labelled OCBO/OCBI in this thesis are quite similar (of course, they have to be similar, because they are the measurement models of OCBI/OCBO).

Fun based motivation:

Even though internal motivation for OCB has been primarily conceptualized as obligation based motivation, Self-Determination Theory points to the possibility that OCB may encompass behaviours that people enjoy doing per se. While it is difficult to imagine that following rules is a pleasant endeavour per se, this is not the case with helping. Considering volunteering or jobs like nursing, it is quite reasonable that helping is driven by fun based motivation. Hence:

H 5: Fun based motivation is more important for OCBI than for OCBO

Obligation based motivation:

There is vast empirical evidence that both helping and conscientiousness are influenced by obligation based motivation (e.g. Podsakoff et. al 2000). Since we can think of no reason, why either helping or conscientiousness should be associated with higher levels of obligation based motivation, we propose equally strong influences. Hence:

H6: Obligation based motivation is equally important for OCBI as for OCBO

Profiling based motivation:

In order to serve as a status enhancing device, a specific behaviour has to meet two requirements. First, it has to be observed by members of the group. Second, the group must value the behaviour. Both these requirements apply to helping. Since it involves at least the helper and her client, it is always observed by one person. And because it alleviates problems of co-workers, it is likely to be valued. Conscientiousness, in contrast, goes often unnoticed and the direct utility for co-workers is less clear. Even when modelled – like in the questionnaire of this thesis – as “self-profiling”, the motivational effect is probably small, because the acts of conscientiousness comprise “low cost situations” in which no fundamental norms are at disposal.

In a similar vein, Finkelstein und Penner (2004) argue that external motives are more important for OCBI than for OCBO (Finkelstein & Penner, 2004). Hence:

H7: Profiling based motivation is more important for OCBI than for OCBO

Avoidance based Motivation:

The same reasoning as for profiling based motivation applies here: Observability and importance for the group make retaliation in the case of helping more probable than for conscientiousness. Hence:

H8: Avoidance based motivation is more important for OCBI than for OCBO

Career based motivation:

When it comes to career decisions, a supervisor may base his decision on helping and conscientiousness alike, because both make a manager's job easier and both offer cues for engagement above the norm. While helping has the advantage that it can be better observed (in many cases indirectly in the form of reports by co-workers), conscientiousness is especially valuable in the context of a pharmaceutical production site, where managers themselves are evaluated in part whether they meet quality criteria. Because of these considerations, career based motivation will probably be equally strong for OCBI than for OCBO. Hence:

H9: Career based motivation is as important for OCBO as for OCBI

Until now, we've focused on the relationships between motives and OCB. However, motives are not the only factors influencing OCB. According to meta-analytic evidence, situational antecedents explain the greatest amount of variance in OCB (cf. chapter 2.1.2). Thus it is reasonable to assume that both motives and situational factors influence OCB. But, how exactly do motives and situational factors exert their influence on OCB? Three ways are possible. First, motives and characteristics of the situation independently affect OCB. In this case, we do not expect any significant interaction effects. Second, motives can be thought of as relatively stable constructs that moderate the relationship between situation and OCB. Hence, motives are considered to be exogenous variables which are not influenced by the situation. Third, situational factors may be related to OCB indirectly, i.e. situation influences motives, which in turn influence OCB. Thus, motives may mediate the relationship between situational factors and OCB. Self-Determination Theory, with its focus on internalization and crowding effects, tends to adhere to this interpretation.

To figure out which interpretation has the best fit with data is not only of theoretical interest, it has also practical ramifications. For example, moderation hints to stable motives, which in turn suggests focusing on assessment and selection. In contrast, mediation implies that characteristics of the situation have an influence on motives. In this case, interventions like work design or change of leadership style can be effective ways to foster OCB.

In order to develop testable hypotheses, we need to focus on specific aspects of the situation. For subsequent analyses, we choose supervisor's interpersonal fairness as situational variable. *First*, it has been shown to exert a significant influence on OCB in empirical studies (P. M. Podsakoff et al., 2000). *Second*, there hasn't been as much research on interpersonal fairness as on distributive and procedural fairness. *Finally*, since most employees have to deal with supervisors on a regularly basis, understanding the consequences of interpersonal fairness is likely to be important in many situations.

According to Self-Determination Theory, a supportive context leads to higher levels of internal motivation. Since interactional fairness is a cue that the organization takes their employees seriously and wants them to be involved, it is likely to enhance internal motivation. This enhanced internal motivation will result in higher levels of OCB. Hence, motives are best modelled as mediators. Thus:

H10: Motives mediate the relationship between interpersonal fairness and OCBI/O in the sense that higher levels of perceived interpersonal fairness lead to higher levels of internal motivation, which in turn results in higher levels of OCBI/O.

The mediating effect put forth in Hypothesis 10 is visualized in the figure below.

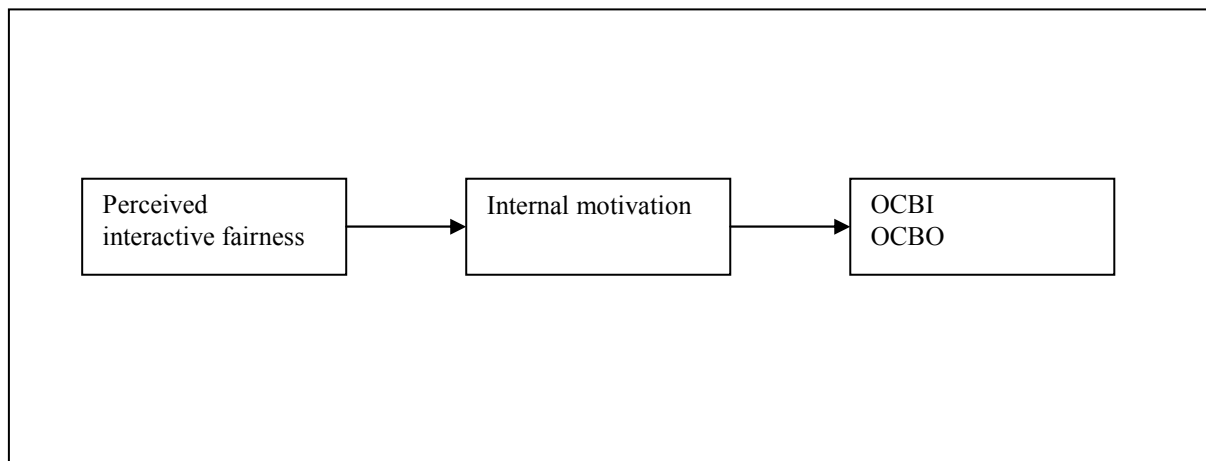


Figure 17: Hypothesis 10: Internal motivation as a mediator between perceived interactive fairness and OCBI/OCBO

Summary of chapter “Hypotheses”

The hypotheses developed in the section above propose a causal ordering between direct observable workplace behaviours (OCBI and OCBO), motives (both internal and external) and leadership behaviour (perceived interpersonal fairness). Hypotheses 1-4 deal with the relative weight of internal and external motivation in influencing OCBI/O. The goal is to find out whether internal or external motivation has a greater impact on OCB. Hypotheses 5-9 propose for each motive how important it is for OCBI and OCBO respectively. These hypotheses test whether the motivational bases of OCBI and OCO differ. Finally, hypothesis 10 considers one important context variable – perceived interpersonal fairness of leadership behaviour – and postulates a mediator role for internal motivation. Hence, this hypothesis investigates the relations between context factors, motivation and OCB and, as a practical consequence, tests the possibility to foster OCB through leadership behaviour.

The following figure provides a graphical overview of the hypotheses.

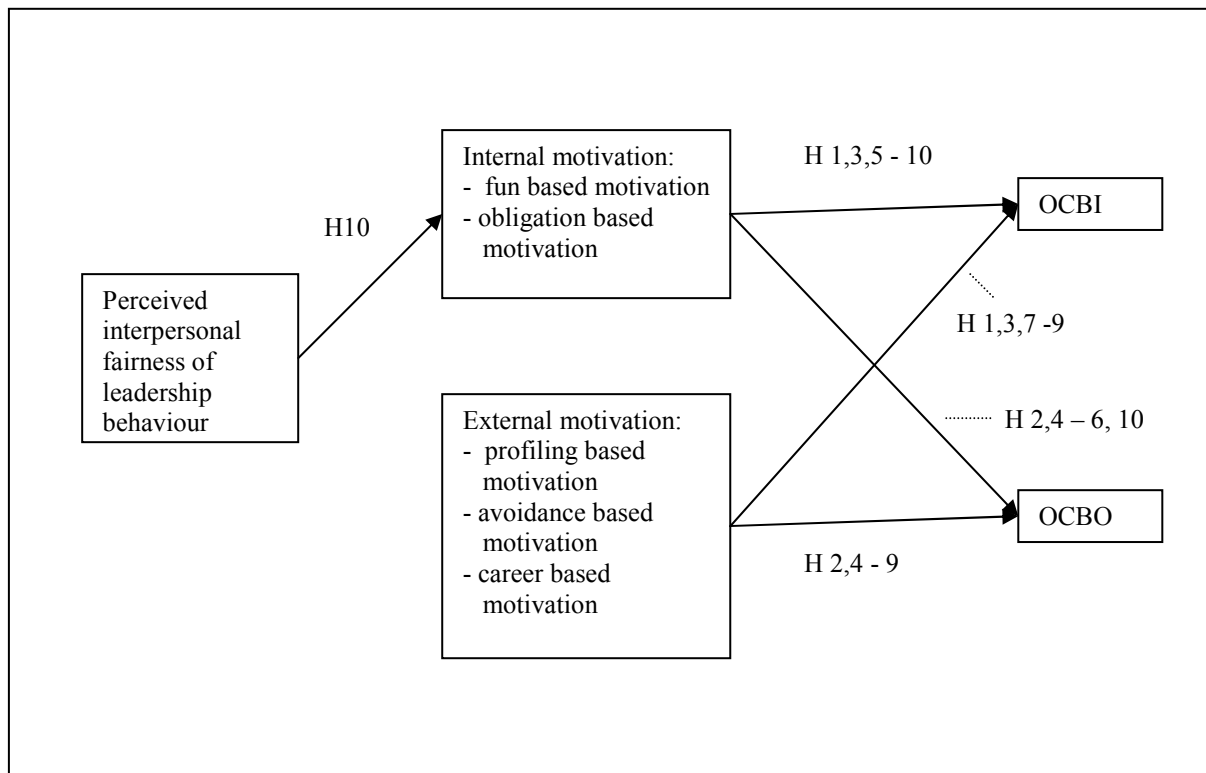


Figure 18: Summary of hypotheses

3. Empirics

3.1 Method

Investigating the motivational the basis of OCB empirically involves making several epistemological and methodological decisions. Usually, these decisions are not made explicitly, but can be thought of as a foundation which researchers tacitly agree upon. However, in the context of a PhD thesis we consider it appropriate to shed light on some of these topics. Thus, the following section deals with some epistemological (chapter 3.1.1) and methodological (chapter 3.1.2 and chapter 3.2.2) questions. The goal is not to give a comprehensive account of these issues, but to include those problems that are relevant for the empirical research reported later in this thesis. As a consequence, each subsection discusses general theory while at the same time making references to corresponding topics in our empirical study.

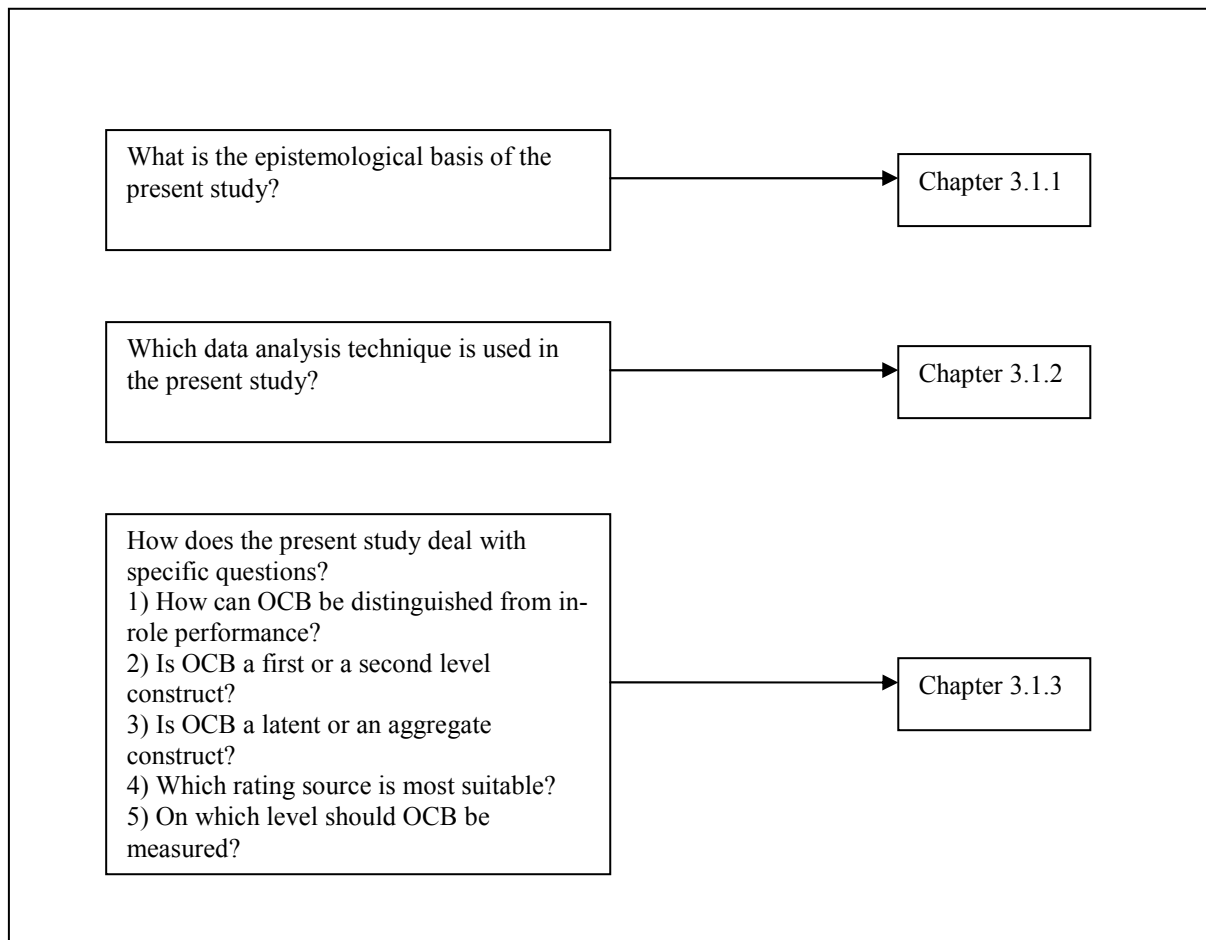


Figure 18: Structure of chapter 3.1.

3.1.1 Truth and method, or, some preliminary epistemological remarks

In the introduction to this thesis, we state that our goal is to shed light on the motivational mechanisms driving OCB. Yet opening the “motivation black box” lying behind OCB is not an end in itself. Rather, it is motivated by both a theoretical and a practical interest. Firstly, it is supposed to broaden our understanding about the mechanisms driving OCB. Secondly, an extended knowledge of these underlying motivational mechanisms will allow us to influence OCB in a more effective way. In pursuing these interests systematically and – above all – in a scientific manner, we inevitably have to take epistemological decisions. This chapter aims to make some of these decisions transparent. Topics include the nature of the actor, ontology, the relation between theory and data, choosing a theory, and research methodology. The specific implications for this thesis are written in italics at the end of each paragraph.

a) Nature of the actor: weak methodological individualism

As a basic premise, we adopt a weak form of methodological individualism. This means, that individuals (and not organizations) have the capability to act. Acting involves intentionality and people freely choose their courses of action. Hence, social entities like institutions emerge from individual acts, and understanding these social entities involves investigating their underlying personal acts. In the words of Jon Elster:

“The elementary unit of social life is the individual human action. To explain social institutions and social change is to show how they arise as the result of the actions and interaction of individuals” (Elster, 1989p. 13).

This position marks a contrast to two other views on the nature of the actor. Firstly, it is opposed to holism, according to which social entities like firms can themselves act. Secondly, it is contrary to determinism, which assumes that persons cannot freely choose their actions. Determinism comes in two forms: the social form, according to which individual action is completely constrained by social structure, and the biological form, which holds the view that subconscious neuro-physiological processes entirely determine human action.

OCB research – at least that being published in peer-rated journals – is firmly rooted in methodological individualism. It even appears in the definition of OCB as “discretionary behaviour”. Indeed, individual free choice to engage in OCB lies at the heart of both conceptual and empirical research. In addition, it is supported by self-reports, and both coworkers and supervisors consistently attribute an element of free choice to OCB behaviour (ev.). Yet we do not assume that people act completely freely. Their choices are in part

constrained by social and biological factors. Thus, we opt for a weak form of methodological individualism. For example, to take into account structural restrictions, we consider interaction effects in the empirical part of this thesis.

In this thesis, we adopt a weak form of methodological individualism which assumes free-acting individuals as building blocks of social phenomena yet allows for structural restrictions.

b) Ontology

In social science, no over-arching consensus regarding the ontological status of social entities exists. Specifically, there is an ongoing debate between the proponents of subjectivism and those of objectivism. In short, objectivism states that an independent reality exists and that we can perceive this external reality. By contrast, subjectivism postulates that reality is constructed in our minds without any reference to an external, independent reality. But why do we have to deal with these matters? Can we not leave them to metaphysicians? We cannot, because the ontological status of social entities affects the possibility and way of knowing these entities. And because knowledge implies concepts of truth (i.e. someone knows something if his knowledge is true), ontological status is related to theories of truth. Hence, these theories may better inform us what objectivism and subjectivism are about.

At the most basic level, theories of truth consist of three elements: a knowing subject, an object being known and a relation between the two. A theory of truth which focuses entirely on the knowing subject is called a subject-immanent theory of truth. In such a theory, truth consists of a subject-immanent state, which is characterized by the absence of any contradictions or incoherencies. This statement equally characterizes subjectivism, in which the subject becomes the creator of her own reality (without referring to an external reality). In contrast, a theory of truth which places equal weight on the knowing subject and the object being known and which postulates a correspondence between subject and object, is termed a correspondence theory of truth.

Now, it follows logically from the descriptions stated above that subjectivism entails subject-immanent theories of truth, whereas objectivism is related to correspondence theories of truth.

To clarify things, here are some quotes from proponents of each position. Boal argues in favour of objectivism:

“We argue that organizations, like trees, rocks and gravity are real: They are real in their consequences” (Boal et al. 2003, p.84)

“The long-run success of scientific theory gives reason to believe that something like the entities postulated by the theory actually exist” (Boal, Hunt, & Stephen, 2003 p.87).

... and Chia in favour of subjectivism:

“They [organizations] do not exist externally to the mind” (Chia, 2003, p.109)

“Social reality is an arbitrarily constructed artifact”. (Chia 2003, p. 108).

Which position do we adopt in this paper? The problem in answering this question is that we cannot tell which one is true, because we cannot transcend our subjectivity to judge whether an independent external reality actually exists. Nevertheless, we adopt the position of objectivism, because we think subjectivism cannot explain inter-subjective knowledge (which is testable in the sense that it is the same for all parties sharing this knowledge) and which lies at the heart of the scientific endeavour¹⁶¹.

In this thesis we adopt objectivism and the correspondence theory of truth, i.e. we assume that constructs like OCB exist independent of the knowing subject and that we can actually gain testable, inter-subjective knowledge of these constructs.

c) Choosing a theory

Research on OCB is not rooted in a specific theory. Concepts as diverse as psychological contracts and impression management are used to answer questions regarding the nature, antecedents and consequences of OCB. Historically, OCB has evolved from behavioural approaches to the study of organizations (cf. chapter 2.1). Hence, it comes as no surprise that the leading OCB researchers work in management or I/O psychology departments and publish

¹⁶¹ A more sophisticated argument against subjectivism can be found with Boghossian (Boghossian, 2006).

in organizational behaviour journals¹⁶². As a result, most scholarly work draws on theories originating in social psychology. Considering other theories explaining micro-behaviour, almost no research on OCB has been conducted in the realm of (micro)economics. Comparing important features of economics and psychology, the following table reveals that both have quite a lot in common.

	economics	psychology
Shared assumption and practices	methodological individualism realism probabilistic inference field studies and experiments	
experiments	stricter rules/ regression participants are paid	less strict/ ANOVA (analysis of variances) participants are not paid
field studies	only observed variables few questionnaires	latent variables questionnaires
Information processing	black box (S-R)	cognitive, motivational and emotional processes
Reference model	Homo oeconomicus as reference	not one paradigmatic reference model
Analytic strategy	ceteris paribus (multiple regressions)	simultaneous influences (Structural Equation Modelling)
Decision making	Preferences, beliefs, restrictions	motives, cognitions, emotions
Rationality	Rationality (bounded)	Rationality is often assumed,
Goals	Maximize expected utility	heterogeneous assumption: happiness, individual growth

Table 21: Similarities and differences between economics and psychology (according to: Hertwig & Ortmann 2001)

¹⁶² Journals that have published a lot of OCB research are: *Academy of Management Journal*, the *Academy of Management Review*, the *Journal of Management*, the *Journal of Organizational Behaviour*, and the *Journal of Applied Psychology*.

Taking into account these similarities, why not choose an economic approach to the study of OCB? In principle we could, especially if we consider the advantages of the economic approach, such as presentation of the problem structure with a few basic concepts like preferences, beliefs and restrictions, a more coherent core of basis assumptions and an extended capacity to treat problems mathematically. However, these advantages come with substantial drawbacks¹⁶³. Most importantly, motivational processes and different motives are not explicitly modelled in micro-economics, resulting in reduced explanatory power and the loss of the information needed to design and evaluate practical interventions. This does not mean that economics has nothing to say about motivation. However, it employs a rather abstract model of how people are motivated (i.e. in the standard model: maximization of expected subjective utility, given a set of preferences and restrictions) and what motives and intentions they have (preferences can have all sorts of content, making this approach very versatile but at the same time imposing the danger of tautological statements). It seems that for the present study, a middle-range theory (like most theories rooted in social psychology) fit better than generic theories (like economics) that necessarily have to be general, and thereby distance us from processes and contents we are interested in from a motivational point of view (e.g. content of motivation, latent constructs). Thus, in order to investigate the motivational basis of OCB, we choose to lean towards the social psychological side (with some excursions into psychological economics)¹⁶⁴. As a consequence, we employ several meso- (or middle-range) theories. In the empirical part these theories include self-determination theory and functional motives; the rest of the thesis also refers to social exchange theory and social dilemmas.

In this thesis, we basically refer to middle-range theories originating in social psychology.

d) Research methodology

Conducting empirical research in the social sciences involves choosing from a whole range of research methods and data gathering techniques. In the empirical part of this thesis, we conduct a cross-sectional field study using questionnaires to collect data. A field study design is employed because OCB is a construct which is defined relative to a specific organizational

¹⁶³ The question here is not whether psychological or economical approaches are “better”. The question is which is more appropriate to investigating the specific research question, i.e. what constitutes the motivational basis of OCB.

¹⁶⁴ This has the additional advantage that we can relate to the scientific discourse about OCB, which takes place – for better or worse – in the Organizational Behaviour community.

context. What does this mean? OCB encompasses behaviours that are discretionary, go beyond formal and informal role prescriptions and promote the effective functioning of the organization. Hence, we have to define what the role boundaries are (i.e. what do employees consider to exceed role prescriptions) and which behaviours exert positive effects on the organizational level. This is difficult to achieve in the laboratory. For instance, a laboratory experiment investigating the influence of stress on helping behaviour does not necessarily measure OCB, because helping behaviour could be a role requirement or dysfunctional for the organization. Furthermore, Anderson et al. show that effect sizes are generally comparable for laboratory and field research design across a broad range of psychological domains (including helping, leadership style, social loafing and self-efficacy) (Anderson, Lindsay, & Bushman, 1999). Hence, we do not expect the results from our survey to differ largely from laboratory experiments. This notion is supported by research on the influence of OCB on performance appraisals, which has been conducted both in the field and in the laboratory and which yields similar results (c.f. chapter 2.3).

When it comes to questionnaires, it is not the place here to discuss the survey method at length. The following list enumerates the advantages of this method that are relevant in the context of this thesis. More on questionnaire construction in the context of this thesis follows in section 3.3.

- Surveys are useful in describing the characteristics of a large population.
- Consequently, very large samples are feasible, making the results statistically significant even when analyzing multiple variables.
- Statistical techniques can be used to determine validity, reliability, and statistical significance.
- Many questions can be asked about a given topic giving considerable flexibility to the analysis.
- They can be used to study the constructs, we are interested in: attitudes, motives, and behaviours
- Standardized questions make measurement more precise by enforcing uniform definitions upon the participants.
- Usually, high reliability is obtained by presenting all subjects with a standardized stimulus. Thus, observer subjectivity is greatly eliminated.

In this thesis we conduct a cross-sectional field study using questionnaires to gather data.

e) Relation between theory and data

Anchoring this thesis in the correspondence theory of truth implies a specific relation between theory and data. A theory is temporarily supposed to be true if the empirical evidence supports the theory. In the context of this thesis, we transform part of a theoretical framework firstly into hypotheses and then into a mathematical model and compare specific features (i.e. parameters) of this model with the same features of a real-world sample (i.e. we analyse model fit by using statistical inference). If the model fit is acceptable, the theory is (temporarily) supported, i.e. the theory is supposed to explain aspects of the real world (of course those aspects that are similar to the sample). This general idea is depicted in the figure below.

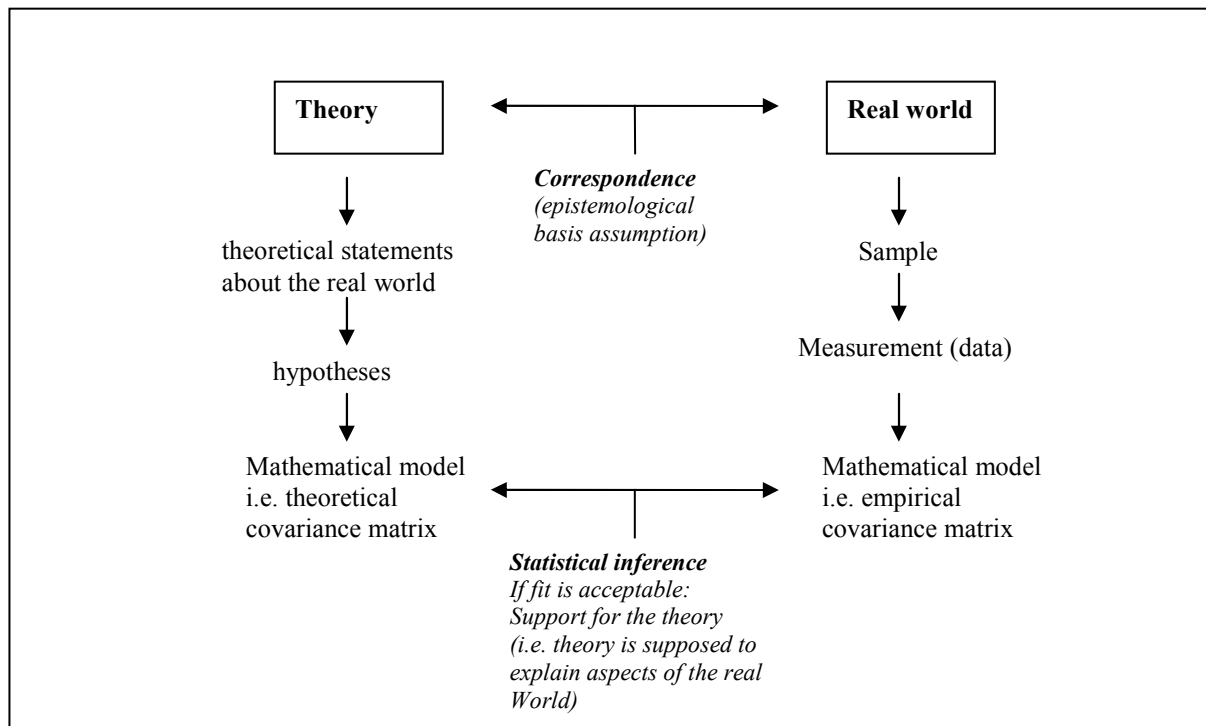


Figure 19: Relations between theory and data according to the correspondence theory of truth

In order to interpret results in the right way, it is important to keep in mind some caveats:

First, the real-world sample also includes theory. We have to define in advance the constructs we are going to measure, the methods we employ to collect data and the way manifest indicators relate to latent constructs. To make these theoretical assumptions transparent, we specify measurement models later on in this chapter.

Second, in the realm of social sciences, deterministic models are hardly ever possible. The best we can hope for is to explain a part of the variance in the criterion variable. To achieve this goal, we employ probabilistic inference techniques. In the context of this study, the technique of choice is structural equation modelling, which allows the modelling of latent constructs and the analysis of multiple relationships simultaneously. More on Structural Equation Modelling can be found in chapter 3.1.2.

Finally, since we employ a cross-sectional design, it is not possible to test issues of causality conclusively. All we can do is compare a theoretically derived co-variance matrix with an empirical co-variance matrix. Thus, reverse causality cannot be ruled out empirically. In this situation, the direction of causality has to be backed by theoretical arguments and by reference to existing evidence¹⁶⁵. However, this situation could soon change in the face of new research dealing with causal inference for non-experimental data. An introduction to this strand of research can be found with Pearl (Pearl 2000).

In this thesis, we basically accept (at least temporarily) a theory, when it is supported by empirical evidence. Specifically, we make explicit measurement models, employ Structural Equation Modelling and rely on theoretical reasons and past empirical evidence in interpreting issues of causality.

3.1.2 Structural equation modelling

The statistical method used to test the proposed motivational framework is structural equation modelling (Structural Equation Modelling). This chapter introduces some key features of Structural Equation Modelling (the following remarks are based on (Byrne, 2001; Hoyle, 1995; Schumacker, 1996)). Rather than providing a comprehensive review of Structural Equation Modelling, explanations focus on the application of Structural Equation Modelling to testing the proposed hypotheses. In this context, we shortly discuss latent and observed, exogenous and endogenous variables, measurement and structural models, covariance matrices, and fit indices. Since we use the statistical package AMOS, we also refer to some features of this program.

¹⁶⁵ And by adding the usual disclaimer that more longitudinal and laboratory research should be conducted.

Latent and observed variables

Structural Equation Modelling can handle latent and observed variables. Observed variables can be measured directly and are also called manifest variables or indicators. Latent variables, on the other hand, cannot be observed directly. They represent abstract concepts and are also termed factors. In the present study, motivation, fairness and OCBI/OCBO cannot be observed directly. Therefore these constructs are modelled as latent variables. In AMOS graphics, observed variables are represented by rectangles and latent variables by circles.

Exogenous and endogenous latent variables

Each structural model consists of at least one exogenous and one endogenous latent variable. Exogenous variables are synonymous with independent variables; they are supposed to cause fluctuations in values of other latent variables in the model. Changes in the values of exogenous variables are not explained by the model. Endogenous latent variables are influenced by other latent variables in the model. In AMOS graphics, endogenous latent variables have a latent residual term, because not all variation of the endogenous variable is explained by the influence of exogenous variables. In the models below, motivation is an exogenous latent variable whereas OCBI and OCBO are endogenous latent variables.

Measurement model

As noted above, we cannot measure latent variables directly. But we can measure manifest variables that are conceptually related to the latent variables. These manifest variables serve as indicators for the latent variables. The relations between indicators and latent constructs can be represented by regression equations. In these equations, the indicator is the dependent and the latent variable and a latent measurement error term are the independent variables. The sum of all regression equations between latent variables and indicators is called the measurement model.

In the present example the observable variables (indicators) are items from the questionnaire. The variation in item values is supposed to be influenced by the corresponding latent construct and a measurement error. In chapter 3.3., the measurement models used in this study are discussed more deeply.

Structural model

The structural model contains the relations between latent variables. These relations can either be unidirectional (supposed causal relation marked by a single headed arrow) or bidirectional (covariances marked by a double-headed arrow). Since hypothesis 9 postulates a causal influence from career-based motivation to OCB, the two latent constructs are connected by a single-headed arrow leading from external motivation to OCB.

Full structural model

A full structural model comprises both a measurement model and a structural model; the measurement model depicts the links between the latent variables and their observed measures and the structural model depicts the links among latent variables themselves. Full structural models for the present study are shown in chapter 3.3.

Covariance matrices

In fitting structural equation models the difference between two covariance matrices is minimized. The first matrix is the sample covariance matrix, which is calculated based on the survey data. The second matrix is a theoretical (or model implied) covariance matrix and is derived from the postulated causal structure. This is accomplished by transforming the set of regression equations which represent the full structural model into the required structure of a theoretical covariance matrix given by conditions on its elements. The free parameters of the postulated causal structure are estimated using the sample covariance matrix.

Fit indices

In order to quantify the degree to which the structural equation model fits the sample, AMOS calculates different fit measures, and most studies using Structural Equation Modelling report several of these measures. For the present study the following fit measures are used (for an overview of fit measures see Tanaka 1993, Li-Tze & Bentler 1995, Schuhmacker & Lomax 1996 and Arbuckle & Wothke 1999):

Degrees of freedom (DF): difference between the number of sample moments and the number of distinct parameters.

Chi-Square: test of the H0 hypothesis (the empirical covariance matrix corresponds to the theoretical matrix in the model) against the H1 hypothesis (the empirical covariance matrix corresponds to any other theoretical matrix). A significant Chi-Square value relative to the degrees of freedom indicates that the observed and estimated matrices differ. Rule of thumb: Chi-Square to degree of freedom ratios in the range of 2 to 1 or 3 to 1 are indicative of an acceptable fit.

Normed Fit Index (NFI): compares the minimum discrepancy of the model being evaluated with the minimum discrepancy of the baseline model (the independence model). Rule of thumb: the nearer to 1, the better; above 0.9 indicates acceptable fit.

Comparative Fit Index (CFI): same idea as NFI, but includes the degrees of freedom and a noncentrality parameter estimate. Rule of thumb: Values close to 1 indicate a very good fit.

Root mean square error of approximation (RMSEA): refers to the variances of the residuals which cannot be explained in the model. Rule of thumb: should be below 0.1 (below 0.05 indicates a very good fit).

Pclose: a p-value for testing the null hypothesis that the population RMSEA is no greater than 0.05. Rule of thumb: should be greater than 0.05.

Akaike information criterion (AIC): includes parsimony in the assessment of model fit. Rule of thumb: the greater the better.

These fit indices cover different aspects: DF is a measure of parsimony, the chi-square/ DF ratio is based on the minimum sample discrepancy function, NFI and CFI include a comparison to a baseline model, RMSEA and Pclose are measures based on the population discrepancy, and AIC is an information-based measure.

3.1.3 Specific problems

In addition to the issues discussed above, some specific methodological difficulties need to be addressed. Rather than giving a general account of potential problems, the following section is restricted to delicate methodological problems encountered in the empirical part of this thesis.

These problems include the distinction between in-role and extra-role behaviour, the modelling of OCB as first-order or second-order construct, the decision between reflexive and formative indicators, the handling of common method bias, and multi-level issues.

3.1.3.1 In-role vs. Extra-role Behaviour

Although the behavioural content of OCB has been intensively debated right from the beginning, the fact that a clear and objective line can be drawn between in-role and extra-role behaviour was taken for granted. This notion changed with an article published by Morrison in the *Academy of Management Journal* (Morrison, 1994). In this article, Morrison draws on theories about role-making and psychological contracts as well as on the fact that most research is based on supervisor's evaluation of job performance. She argues that the boundary between in role behaviour and extra role behaviour varies both among employees and between employees and supervisors, and that employees who perceive a specific behaviour to be in-role are more likely to perform that behaviour. If employees and supervisors indeed have different ideas about role boundaries, the interpretation of empirical studies using supervisor ratings becomes troublesome, because behaviour judged as OCB by supervisors may be In Role Behaviour according to employees¹⁶⁶. Analysing survey data of 317 clerical workers revealed that all but one correlation between employees' role definitions and supervisors' role definitions are not significant, indicating substantial differences in how employees and supervisors define extra role behaviour¹⁶⁷. For most items, mean behaviour when defined In Role Behaviour differed significantly from mean behaviour when defined extra role behaviour. This result supports the hypothesis that employees who consider a specific behaviour to be In Role Behaviour are more likely to engage in this behaviour. To determine what influences perceived role breadth and how role breadth is related to attitudes and extra role behaviour, Morrison conducted a series of hierarchical regression and social network analyses. According to these analyses, affective commitment¹⁶⁸ and structural equivalence¹⁶⁹ are significantly related to extra role behaviour, whereas job satisfaction, gender, tenure and salary do not seem to play a major role in influencing extra role behaviour. In addition, perceived role breadth mediates the relationship between attitudinal antecedents and extra role behaviour.

¹⁶⁶ This constitutes a dilemma: the use of supervisor ratings is intended to avoid common method bias. But the use of supervisor ratings may distort results by taking in-role behaviour for OCB.

¹⁶⁷ In this study, behaviours typically considered to be ERB include helping behaviours, conscientiousness, involvement and keeping up with organizational developments.

¹⁶⁸ In this study, affective commitment, which is defined as emotional attachment to an organization, is differentiated from normative commitment, which refers to internalized beliefs that loyalty is important.

¹⁶⁹ The basic idea is that social cues from co-workers influence the way employees define role breadth; similar social cues lead to similar role definitions. Structural equivalence is supposed to be a proxy for the exposure to similar social cues and is measured by creating a matrix of structural equivalence from social network data. This matrix is related to a matrix of job similarity.

To further disentangle OCB¹⁷⁰-related role perceptions and to expand understanding of the relationship between role perceptions and OCB, Morrison and colleagues recently conducted a follow-up survey study in India (McAllister, Kamdar, Morrison, & Turban, 2007). Focusing on an affiliative (helping) and a challenging (taking charge) OCB, the authors distinguish four different types of OCB role perceptions: perceived role breadth, i.e. whether an employee regards behaviour typically considered to be OCB as part of her job; OCB instrumentality, i.e. a perceived relationship between incentives and OCB; OCB role efficacy, i.e. perceived competence in performing OCB, and OCB role discretion, i.e. perceived extent of choice to perform OCB. Hierarchical regression analyses for the main effects show that perceived role breadth and perceived instrumentality have a significant impact on both helping behaviour and taking charge, whereas perceived efficacy is only related to taking charge. In order to determine the relative importance of different OCB role perceptions, the authors conducted dominance analysis¹⁷¹. The result is that perceived role breadth and perceived instrumentality turn out to be the most important factors influencing OCB. For example, perceived role breadth explains about 30 percent of variance in OCB, and perceived instrumentality accounts for about 10 percent of this variance¹⁷². Of course, the exact amount of variance explained depends on the sample and the specified model, which in this case includes four main and two interaction effects. But nevertheless, these results indicate an important role for both role breadth and instrumentality. Finally, analysis of two interaction effects show that discretion and role breadth moderate the relationship between procedural justice and OCB¹⁷³.

To sum up, research conducted by Morrison and colleagues reveals that the boundary between In Role Behaviour and OCB is neither clear-cut nor objective. Rather, it depends on perceived role breadth. In combination with traditional antecedents like attitudes and personality, this perceived role breadth is an important factor influencing OCB.

During the last decade, these results have prompted some lively discussion. For example, Pond et al. argue that OCB should indeed be evaluated by employees themselves (Pond,

¹⁷⁰ In the article from 1994, Morrison uses the terms OCB and Extra-Role Behaviour interchangeably. In this article, only the term OCB is used. This exemplifies the shift in the use of different terms for similar behavioural phenomena and the growing dominance of the term OCB.

¹⁷¹ Dominance analysis measures the relative contributions of predictor variables. The resulting general dominance coefficients reflect the average contribution to variance explained by a specific predictor across all possible subset regressions.

¹⁷² This result is of great importance for the motivational basis of OCB. Therefore, chapter XY deals with this study from a slightly different perspective.

¹⁷³ In the article from 1994, Morrison models attitudes such as satisfaction and fairness as mediators. In this study, however, procedural justice, which is also an attitude, is modelled as a mediator. The authors fail to make explicit the reasoning for this discrepancy. At first sight, this might seem like a negligible technical detail. However, the choice between moderator and mediator also reflects theoretical propositions regarding the underlying mechanisms.

Nacoste, Mohr, & Rodriguez, 1997). Otherwise, we cannot be sure that employees consider a specific behaviour to be OCB. Drawing on Organ's original definition, the authors make the assumption that if behaviour is formally rewarded, it is not OCB¹⁷⁴. Survey data reveal that employees differ in their assessment of whether a behaviour is formally rewarded or not. In addition, the relationship between attitudinal variables (e.g. fairness, commitment) and OCB is moderated by employee perceptions regarding formal evaluation¹⁷⁵. Lam et al. find small but significant differences in supervisor ratings of OCB items, with supervisors considering OCBs to be part of the teller job to a greater extent than subordinates (Lam, Hui, & Law, 1999). Focusing on managerial jobs, Barksdale and Werner maintain the notion that managers can reliably distinguish between In Role Behaviour and OCB (Barksdale & Werner, 2001). Using confirmatory factor analysis on a survey sample, these authors show that a three-factor model (including In Role Behaviour, altruism and conscientiousness) fits the data much better than a one-factor model¹⁷⁶. Vey and Campbell asked employees and supervisors to label different forms of OCB as in-role or extra-role (Vey & Campbell, 2004). The results showed that employees and supervisors have similar views on role boundaries. Yet some forms of OCB are much more frequently considered to be In Role Behaviour than others. For example, most employees regard helping as extra role behaviour, whereas generalized compliance is judged to be extra in behaviour in most cases¹⁷⁷. Finally, Wilson conducted depth interviews with both employees and supervisors (Wilson, 2005). Generally, respondents saw role boundaries not as stable entities but as negotiable and changing with time.

To conclude, research dealing with defining the boundary between In Role Behaviour and OCB shows that both forms of employee performance can not only be distinguished theoretically but also empirically. However, the specific behavioural content of OCB and In Role Behaviour varies across jobs, managerial level, and sector and may change over time. For example, helping behaviour may be considered OCB for a sales representative, but for a nurse it is part of In Role Behaviour. In addition, some forms of OCB (e.g. conscientiousness) tend to be perceived as more in-role than other forms (e.g. helping behaviour). These findings are not only important for an appropriate measurement of OCB; they also point to the (often

¹⁷⁴ The equalization of formally rewarded behaviour and IRB is somewhat problematic. Behaviour which goes beyond role prescriptions can be rewarded. Hence, it would have been more plausible to investigate employees' assessments of role boundaries.

¹⁷⁵ This result has implications for interpreting the motivational basis of OCB. Formal incentives seem to influence the relationship between attitudes such as fairness and commitment and OCB.

¹⁷⁶ Strictly speaking, this is only indirect evidence, because managers are not explicitly asked whether they consider a specific behaviour to be in-role behaviour or extra-role behaviour.

¹⁷⁷ One drawback of this study is the use of vignettes in which the respondents were supposed to imagine they were working as cashiers.

neglected) relevance of perceived role breadth as an antecedent for OCB. Furthermore, by proposing different motivational mechanisms for OCB and In Role Behaviour and by discussing the effect of external rewards, they also contribute to deepening our understanding of the motivational basis of OCB.

In the present thesis, we have established two safeguards against the pitfalls of idiosyncratic role definitions. Firstly, to evaluate OCB, both self- and peer-ratings are employed¹⁷⁸. This allows the capture of the view of the respondents while at the same time reducing common method bias. Secondly, in the process of designing and testing the questionnaire, we conducted on-site interviews with managerial and non-managerial employees, thus ensuring that we are measuring OCB and not In Role Behaviour.

The behavioural content of OCB can differ among rating sources. To avoid biases caused by matching self-rated motivation with other rated OCB, we conduct interviews with participants and include self-ratings of OCB in our analyses.

3.1.3.2 First-order vs. Second-order Construct

Empirical research dealing with OCB has to make decisions regarding the appropriate modelling and measurement of OCB. One of the most basic decisions concerns the question whether OCB should be modelled as a first-order construct, or whether OCB is a second-order construct consisting of several first-order sub-constructs. For example, in survey research a first-order construct approach would measure OCB with items covering the whole range of individual behaviours considered to be manifestations of OCB. A second-order approach, in contrast, would define several sub-constructs for OCB (e.g. helping behaviour and voice) and would measure each of those sub-constructs with specific items. To justify their choice, researchers put forth pragmatic, theoretical and empirical reasons. From a pragmatic perspective, it is time-consuming and costly to measure the whole behavioural domain of OCB. Referring to theory, some scholars derive specific sub-categories from established theoretical frameworks. For example, Van Dyne & Graham propose a categorization of OCB based on political philosophy (Graham, 2000). Yet the vast majority of researchers employ empirical arguments to determine the adequate modelling of OCB. Those arguments predominantly refer to construct and predicative validity. Testing construct validity in OCB survey research typically involves factor analysis, which frequently results in several

¹⁷⁸ Due to size restrictions, we did not directly ask respondents to judge whether they perceive behaviour to be extra-role. Rather, respondents had to indicate how often they perform a specific kind of behaviour.

groups of items having high convergent validity within item groups and sufficient discriminant validity between item groups. Research conducted by Organ is typical for applying factor analysis to develop a categorization of OCB (cf. Chapter 2.1.1). Predicative validity is concerned with testing propositions derived from nomological networks. In many cases, different sub-categories of OCB are supposed to have both different antecedents and consequences. In survey research, the analytic testing procedures usually involve multiple regressions and structural equation modelling. Things are further complicated by two common, yet problematic phenomena. Firstly, some empirical papers refer to OCB as if it were a general first-order construct. However, what they are actually measuring is a specific sub-category, such as helping. Secondly, there is an escalating proliferation of second-order constructs. Some scholars use two constructs (Smith et al., 1983; Williams & Anderson, 1991), some four (Van Dyne et al., 1994), some five (Organ 1988), others even seven (Podsakoff et al. 2000).

To conclude, theoretical, empirical and sample-specific reasons suggest the use of OCBI and OCBO in this thesis.

3.1.3.3 Latent vs. aggregate construct

In the chapter dealing with Structural Equation Modelling, we noted that motivation and OCB are latent constructs because they cannot be observed directly. However, this seems to involve a contradiction. OCB is – by definition – an observable behaviour. How can OCB be a latent construct (i.e. a non-observable behaviour) and at the same time be observable? Before we resolve this contradiction later on, we need some terminological clarification. In Structural Equation Modelling the relations between latent and manifest variables can be modelled as latent or as aggregate constructs. In the former case, the latent construct is supposed to influence the manifest variables. For example, in testing intelligence, a latent construct, mathematical ability, causes participants to solve arithmetic problems successfully. Yet, in the latter case, the manifest variables influence the aggregate construct. For example, in measuring diversity, we sum up manifest variables like, gender, education or ethnic background.

In the literature, the question whether OCB should be modelled as latent or as aggregate construct is still hotly debated. Accounts of this discussion can be found with Law et al. (2005), Jarvis et al. (2003), and (Motowidlo, 2000).

Deciding between aggregate and latent constructs influences the graphic representations of structural and measurement models. Latent constructs are associated with reflexive indicators, representing the idea that the latent construct has a causal influence on the manifest construct. In contrast, aggregate constructs are depicted with formative indicators, indicating the idea that the causal direction is from manifest variable to latent construct.

In the empirical part of this thesis, OCBI and OCBO are modelled as latent constructs. This solution is in line with most empirical research, which makes it easier to compare results. Furthermore, we believe that answering OCB-related items in a questionnaire is indeed influenced by latent constructs. For instance, helping is behaviour that comes in different forms. However, in our research design we do not observe these forms of helping directly. Rather, we observe answering behaviour (i.e. marks) on Likert scales in our questionnaire. This answering behaviour is not real world helping behaviour. But helping as latent construct (or, to put it differently, helping as a propensity to help in real-world situations) influences the way people answer items describing specific helping behaviours. Thus, we have to distinguish the real world, in which helping could reasonably be interpreted as an aggregate construct summarizing specific helping incidents, from the questionnaire world in which answering behaviour is influenced by a latent helping construct. The items in the questionnaire world are verbal descriptions of the specific helping incidents. For a graphical representation of this situation, see the figure below.

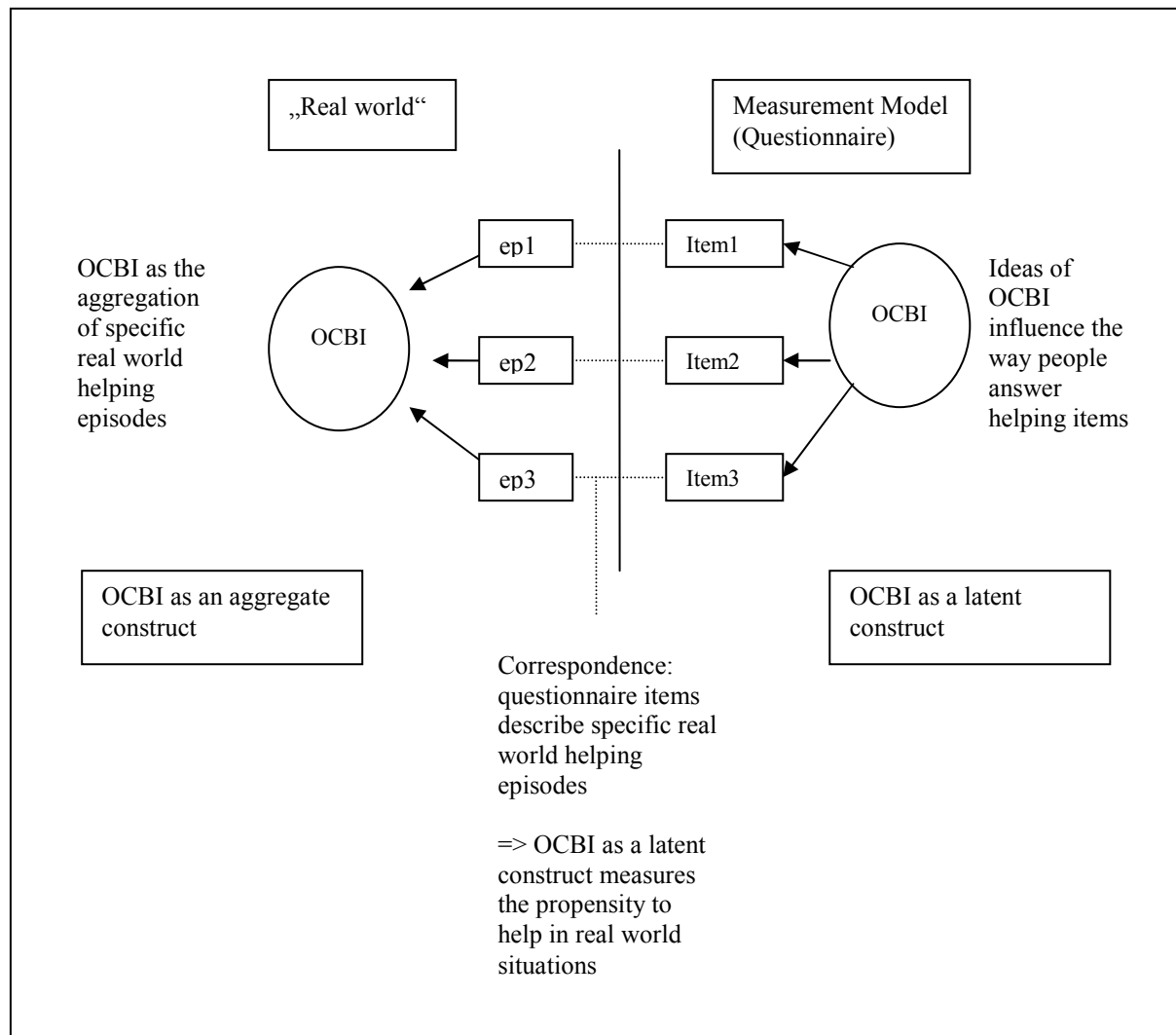


Figure 20: OCBI as a latent and as an aggregate construct

When it comes to aggregating OCBI and OCBO so as to form an overarching OCB construct, this construct can reasonably be conceptualized as a latent or as an aggregate construct. Arguments for an aggregate construct solution can be found in van Dyne, those favouring latent constructs in Organ (D. W. Organ et al., 2006; Van Dyne & Farmer, 2005).

In the present thesis, we model both OCBI and OCBO as latent constructs.

3.1.3.4 Rating source

Whereas motivation and attitudes are naturally recorded using self ratings, OCB can be measured in several different ways¹⁷⁹. Peers, supervisors and the employee can observe and subsequently rate OCB. Each of these measurement methods has advantages and drawbacks, which are summarized in the table below.

	<i>Self-rating</i>	<i>Peer-rating</i>	<i>Supervisor rating</i>
<i>Advantages</i>	<ul style="list-style-type: none"> - <i>no problems of observability</i> - <i>no role confusion</i> 	<ul style="list-style-type: none"> - <i>independent observations</i> - <i>peers are likely to have similar role concepts</i> - <i>peers observe more than supervisors</i> - <i>“tactical” OCB (e.g. Impression Management) is more likely to be detected</i> 	<ul style="list-style-type: none"> - <i>independent observations</i> - <i>supervisors are used to (and are legitimized) to rate their employees</i>
<i>Disadvantages</i>	<ul style="list-style-type: none"> - <i>self-serving bias</i> - <i>common method bias</i> 	<ul style="list-style-type: none"> - <i>peers may be reluctant to rate their colleagues</i> - <i>some behaviour may go unnoticed</i> - <i>ratings may be biased due to no rating experience or sympathy</i> 	<ul style="list-style-type: none"> - <i>some behaviour may go unnoticed</i> - <i>different role perceptions (what is In Role Behaviour and what is OCB?)</i> - <i>ratings may be biased by sympathy, illusory correlations and other rating errors</i>

Table 22: Advantages and disadvantages of self, peer, and supervisor ratings (own construction, based on (Lam et al., 1999))

Deciding which method to use involves pondering two issues. On the one hand, employing different methods avoids common method bias. On the other hand, the choice of adequate

¹⁷⁹ Of course, the question remains how to measure motivation. While it would be possible to include “objective” measures (e.g. neuro-physiological data), we stick to the notion that reasons to act are relevant motivational forces for OCB. These reasons are captured by asking people to rate items in a questionnaire such as “I engage in helping, because it is important to me” or “I engage in helping because it could be instrumental in getting promoted”.

methods should be guided by theoretical considerations. For example, if we are interested in changing job boundaries, it makes sense to use self rating. On the other hand, if we want to investigate the influence of OCB on promotions, supervisor ratings should be preferred.

Evaluating these issues, we employ both peer rating and self rating in the empirical part of this thesis. This solution has several advantages. Firstly, peer rating reduces common method bias because motivation and OCB are evaluated by different sources. Secondly, peers are more likely than supervisors to note helping behaviour and conscientiousness. In addition, they have similar role concepts and “tactical” OCB (e.g. impression management) is more easily detected. Thirdly, self rating allows the recording of behaviour which would otherwise go unnoticed. Finally, having measures of both peers and employees, we can analyse differences between peer and self rating, thereby contributing to research on measurement issues.

To avoid common method bias, we employ both self- and peer ratings of OCB.

3.1.3.5 Multilevel analysis

In reality, employees performing OCB are embedded in a social context. In the case of economic organizations, this context usually consists of a nested structure, i.e. employees work in teams, which are part of divisions, which in turn make up the organization. Behaviour which takes place in such a nested structure may be influenced by factors originating at levels other than the individual. Hence, OCB is likely to be driven not only by individual motives, cognitions and attitudes, but also by group norms, network structures and work processes. In addition, OCB may also have consequences on different organizational levels. In fact, OCB must have an impact on an aggregate level, because the definition of OCB requires it to contribute to the effective functioning of the organization.

This situation poses methodological challenges. How can we differentiate influences due to group characteristics from those due to individual characteristics? And how can we model emergence? From a technical point of view, statistical procedures have been developed that enable us to cope with multilevel issues. For example, using hierarchical linear modelling, group characteristics can be taken into account by allowing the intercept and the slope of the individual level regressions equations to be a linear function of group characteristics.

Alternatively, modelling higher level OCB as a form of unconstrained pooled emergence¹⁸⁰, we can calculate sums or means to quantify the higher level construct. Yet employing these methods entails more complicated research designs, because enough observations at each level are needed to capture sufficient variance in each construct (Klein & Kozlowski, 2000).

Turning our attention to the empirical part of this thesis, which multilevel issues do we have to consider? The answer to this question depends on model specification. If our model is specified as an individual level model, we do not, at least from a statistical point of view, have to bother about particular multilevel issues. However, if our model takes the form of a unit single model or a cross-level model, specific statistical techniques have to be applied. In order to determine the appropriate model specification, we have to look at the level of each construct employed in our models (Kozlowski & Klein 2000). Motivation (i.e. the functional motives) is certainly an individual level construct. Considering the situational factors (e.g. fairness), the situation is a little bit more complicated. For instance, the procedural fairness of the promotion system is a unit variable, indicating a cross-level effect. However, we are not measuring objective features of the promotion system. Rather, we are measuring the perceived procedural fairness, which is an individual-level construct¹⁸¹. But why are we measuring perceived fairness, which is vulnerable to subjective distortions and entails the problem of common method bias? Because the subjective (i.e. the perceived) organizational context drives employee behaviour much more than objective (i.e. independently measured) contextual factors, and we are interested in the motivational basis of OCB. The dependent variable, OCB, is a form of individual behaviour and therefore an individual-level construct as well. The measurement of OCB using self rating corresponds to the level of the construct. But, in order to reduce common method bias, we also use peer-ratings. Since practical reasons did not allow the formation of employee-rater dyads, we formed items like: “many colleagues help each other, if the work load is too heavy”. Does this mean we are measuring a unit construct? We do not think so, because the wording of the question makes no reference to units. However, the wording may lead respondents to think of a group mean rather than individual behaviour, thereby reducing variance in the criterion.

¹⁸⁰ Pooled unconstrained emergence is a form of isomorphic composition. It is characterized by elemental contributions which are of the same type but have different levels (Kozlowski & Klein 2000). For example, group level OCB (as an emergent unit-level construct) consists of individual level OCB of the same type. However, the intensity of OCB is probably not the same for all employees. Other examples of pooled unconstrained emergence are social loafing and free-riding. This similarity between OCB and free-riding in terms of multi level analysis lends additional support to modelling OCB as social dilemma (c.f. chapter 2.3).

¹⁸¹ In most cases, it is supposed that these subjective perceptions involve an evaluative element. In this case, they are usually termed attitudes.

To conclude, because all constructs are individual-level constructs, no multilevel methodology has to be applied. However, this does not mean that multilevel issues are irrelevant in interpreting the results. For example, little variance explained or non-significant linear relations between constructs may hint at substantial direct or moderated cross-level effects. In our case, this is quite probable, because group norms, task interdependencies and other contextual factors are likely to influence the level of individual OCB.

Since all constructs are measured at individual level, we do not employ multi-level methodology. However, we have to keep in mind cross level effects when interpreting the results.

Synopsis of chapter “method”

In this thesis, we adopt methodological individualism, objectivism and the correspondence theory of truth. Middle-range theories originating in social psychology and parts of psychological economics form the theoretical basis of this thesis. Data are gathered using questionnaires in a cross-sectional field study. The (temporary) acceptance of theoretically derived models depends on their fit with real-world samples. The statistical method of choice is Structural Equation Modelling, because it allows the modelling of latent variables and the estimation of several regressions simultaneously.

Considering idiosyncratic and changing task boundaries, we argue that OCB can be distinguished from In Role Behaviour, but we have to check the behavioural content of OCB in each specific situation. To capture the many facets of OCB, we choose a second-order conceptualization featuring OCBI and OCBO. Both OCBI and OCB are modelled as latent constructs and measured by self and peer rating. In this study, we do not need to model constructs at different levels, but we have to take multilevel issues into account when interpreting the results.

3.2 Questionnaire Construction and Data Collection

To collect data for this thesis, the method of choice is the questionnaire. Hence, before gathering data in the field, an appropriate questionnaire has to be developed. The construction of this questionnaire is guided by three considerations. Firstly, existing measures are used whenever possible. This has the advantage that previously tested scales with known reliabilities can be used. In addition, it makes it easier to compare results with those of existing studies. Secondly, wherever necessary, the questionnaire is adapted to our sample. For instance, the specific design of the performance appraisal and the promotion system has to be taken into account when constructing items which are supposed to measure the procedural fairness of those systems. Thirdly, before measuring the full sample, the questionnaire is tested in several ways to secure reliability and validity. For example, it has to be ensured that participants really understand the wording of the items.

In order to address these considerations, we implemented a process which consists of five phases. An overview of this process is depicted below. Subsequently, each phase is described in greater detail.

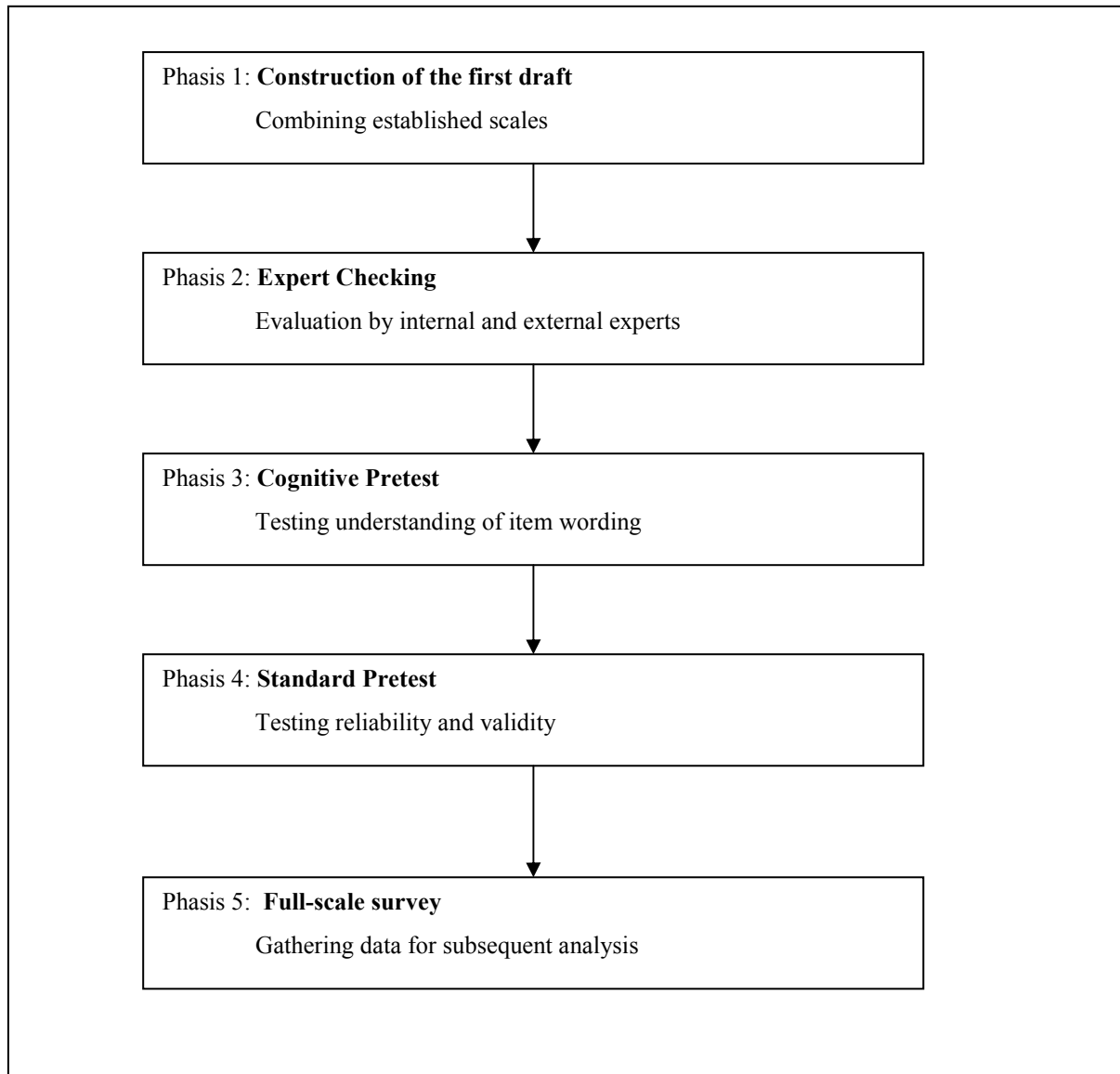


Figure 21: Questionnaire construction

1) Construction of the first draft

Designing the first draft consists of finding suitable existing scales (e.g. general fairness) and, whenever necessary, adapting them to the organizational context (i.e. fairness of specific incentive systems). Since the questionnaire is used in a larger research project, it does not only contain the constructs employed in the present thesis¹⁸². For our thesis, the scales for OCB and motivation are especially important. OCBI is measured with a scale from Bierhoff and OCB with a scale from Konovsky and Organ (Bierhoff 2000, Konovsky&Organ 1996). OCBI includes items such as “I give valuable advice to my colleagues” and “I help colleagues with heavy workload”. For OCBO, exemplary items are “I follow rules and instructions with special care” and “During work, I’m attentive above average”.

¹⁸² This research is funded with a grant from the Swiss Science Foundation.

For all items, five-point Likert scales are used. These scales measure the level of agreement to a statement. Categories range from “strongly agree” to “strongly disagree”. Since the employees of the production site mainly speak German, we had to translate the items. To ensure conservation of meaning, we employed backwards translation. A complete account of the origins of the items used in this study can be found in the appendix of this thesis.

2) Expert checking

In order to improve understanding, construct validity and practical suitability, we let different experts fill in the questionnaire. Afterwards, we interviewed each expert to collect critique and suggestions. Experts were chosen from different domains: from the department of management (i.e. internal experts), from ZUMA¹⁸³ (i.e. external experts), and from the organization being surveyed (i.e. practice experts). Internal experts were members of the chair of Prof. Dr. Dr. h.c. Margit Osterloh, who gave feedback in internal seminars. In addition, members from different chairs were interviewed to receive input from researchers who were not familiar with the underlying theory. The questionnaire was further scrutinized in several telephone interviews with experts from ZUMA. As a consequence of these interviews, we avoided reverse-coded questions in order to enhance understanding. Finally, interviews with managers from our sample organization led to further adaptations of the questionnaire. For instance, two additional items were included to account for specific characteristics of the sample organization (these two items were: “My supervisor acts as role model” and “My work here at XY is under-challenging”).

3) Cognitive Pretest

In order to make sure that participants understood items in the right way, a cognitive pretest was conducted. The design and implementation of this pretest followed Prüfer & Rexroth (P. Prüfer & Rexroth, 2000; P. Prüfer & Rexroth, 2005). In the first step, a standardised evaluation sheet was developed. This sheet listed cognitive techniques that were going to be applied for selected items in the evaluation interviews. We employed cognitive techniques such as special comprehension probing (i.e. the participant is asked to explain a term), category selection probing (i.e. the participant explains why she chose a certain category), general probing (“is there something you didn’t understand?”), retrospective thinking aloud (i.e. the participant is asked to express the considerations which led to an answer), and paraphrasing (i.e. the respondent is asked to restate the question in his own words).

¹⁸³ ZUMA is the abbreviation for “Zentrum für Umfragen, Methoden und Analysen“, a German research institution supporting social researches in methodological questions.

Using this standardized evaluation sheet, we conducted cognitive interviews with seven employees. These employees were chosen to represent different hierarchical levels, different educational backgrounds, and different levels of fluency in German. At each interview, two researchers were present, an interviewer and an observer. Participants were told that we needed their help to improve the quality of the questionnaire. In addition, each interview was recorded on audiotape.

Following analysis of the evaluation sheets and the audio tapes, we decided to change the wording of some items. For example, it turned out that several people did not understand what the term “fair” means, the term “team” was considered to be too vague, and expressions like “not at all” or “always” were seen as judgemental.

4) Standard Pretest

To further scrutinize the questionnaire, we conducted a pretest in one section of the production site. This section is located 20 kilometres away from the main production site and is similar in terms of work processes, incentive systems and population characteristics. In total, 97 employees participated in this pretest. With the exception of those being sick, this corresponded to the whole population of this site. Specifically, we were interested in two features of the survey design.

Firstly, the data gathering procedure was tested to ensure practicability and enhance reliability. This procedure mainly consisted of on-site meetings with groups of participants. During working hours, groups of about twenty employees were subsequently invited by management to gather in a conference room located in the administrative building of the production site. Members of the research team were present at all these group sessions. At the beginning of each session, the manager of the site gave a short speech explaining the context of the study and why it was important to participate. After this speech, the manager left the room. Then, a member of the research team commented on the goals of the study and indicated the possibility that participation might enhance human resource practices. In particular, the researcher explained that participation was voluntary and that confidentiality was ensured. Only the researchers would have access to all the data, and management was only provided with data at aggregate level. In the next step, participants filled in the questionnaire, put it in an envelope, sealed the envelope, gave it to the researchers and left the room. As a little sign of appreciation, each participant received a small snack (which was not announced at the beginning of each session).

Secondly, reliability and validity were enhanced by applying statistical procedures (analysis of reliability, factor analyses, test of normality assumption, and correlation analyses). As a result of these analyses, several items were dropped. For instance, one item was removed from the skill variety scale of Hackman and Oldham's job diagnostic survey because this resulted in improved Cronbach's alpha (rise in Cronbach's alpha from 0.37 to 0.59)¹⁸⁴.

5) Full-sample survey

In the last step, we surveyed employees at the main production site¹⁸⁵. The procedure was the same as for the standard pretest. At each group session, at least two researchers were present. In total, we received questionnaires from 463 employees. These questionnaires were scanned in the computer lab of the University of Zurich using special survey software. As a result, we directly received an SPSS file with raw data. Scanning the questionnaire had the additional advantage that we were able to reduce coding errors.

For this thesis, we developed and tested a questionnaire which was used to gather data from the sample. The construction of the questionnaire involved five phases: first draft, expert checking, cognitive pretest, standard pretest and full sample survey. The sample consists of the employees (n= 463) of a large industrial production site in Switzerland.

¹⁸⁴ Further information regarding the item reduction process can be obtained from the author upon request.

¹⁸⁵ Due to a confidentiality agreement, the identity of the organization being surveyed is described in terms like "a large, multinational firm in the pharmaceutical sector".

3.3 Analysis and Results

This section exposes main results from statistical analyses of the data set described above. It proceeds in three steps. First, means, standard deviations and correlations between variables of interest are presented (chapter 3.3.1). Second, the measurement models for OCBO, OCBI, motivational types and interactional fairness are described. This involves reliabilities, exploratory factor analyses and confirmatory factor analysis (chapter 3.3.2). Finally, the chapter closes with results from full structural models and multivariate regression, testing the hypotheses developed in the theoretical part of this thesis (chapter 3.3.3).

In order to ensure the robustness of results, both methodological and statistical safeguards are employed. Methodologically, we include self- and peer- observations of OCBI/O in our analyses. Considering both kinds of observations entails three benefits. First, it allows controlling common method bias. Second, since self- and peer- observations alike have advantages and drawbacks, this procedure combines benefits from both approaches. For instance, self- observation avoids problems of observability and role confusion; whilst peer- observation ensures independent observations¹⁸⁶. Third, providing results for both kinds of ratings may contribute to the ongoing debate on the suitability of self-, peer- and supervisor ratings.

Statistically, the hypotheses are tested not only with full scale structural equation modelling, but also with multivariate regression. Hence, we employ a different statistical method (multivariate regression) and a different statistical package (SPSS) to check plausibility of main results¹⁸⁷.

Correlations, factor analyses and reliabilities are calculated with SPSS 14; Confirmatory Factor Analysis and full Structural Equation Modelling with AMOS 6. In order to keep focused, this section includes main results. Additional analyses are available from the author upon request.

The proposed three-step strategy for data analysis is summerized in the figure below.

¹⁸⁶ For a more detailed discussion of advantages and disadvantages of self-, peer-, and supervisor ratings see chapter 3.1.3.4.

¹⁸⁷ Since structural equation modelling and multivariate regression are based on different statistical models, the results won't be exactly the same. Yet, comparing results from both models allows detecting crude mistakes.

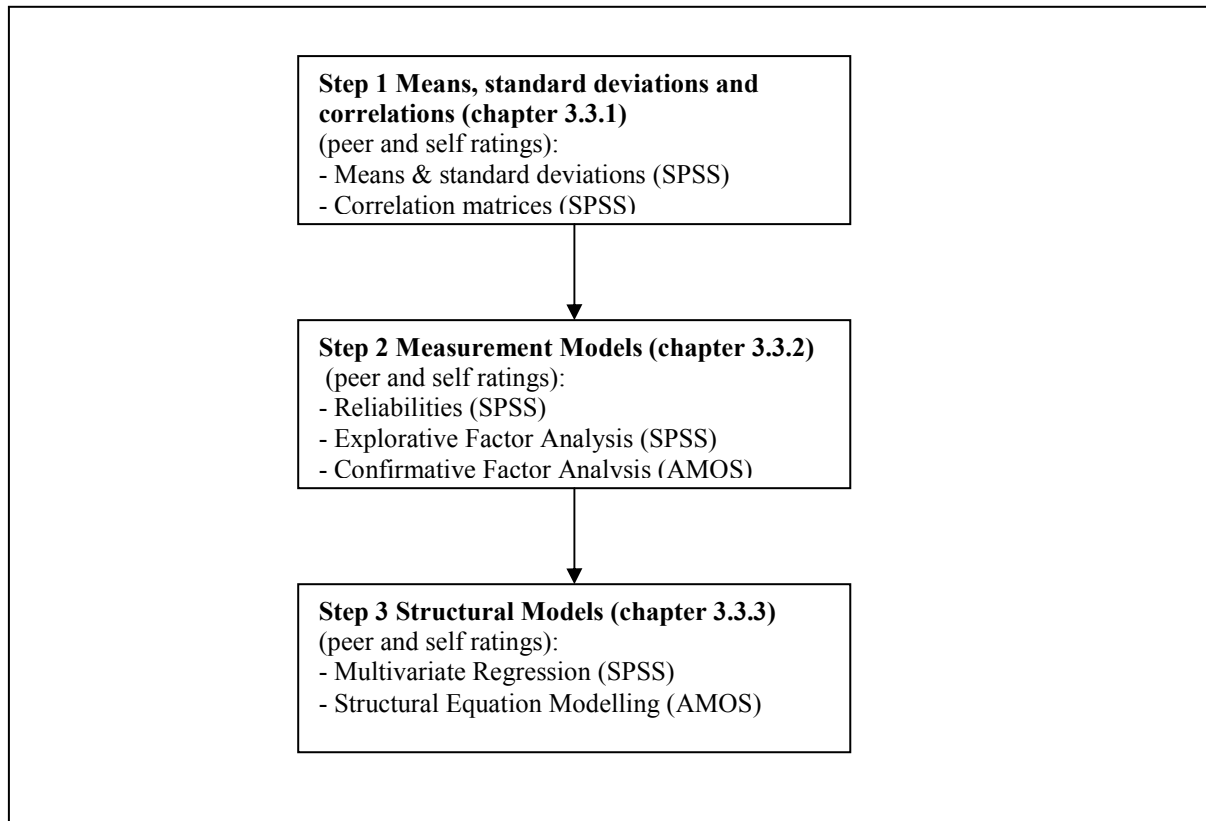


Figure 22: Strategy for data analysis

3.3.1 Means, standard deviations and correlations

The first step in our analytic strategy consists of calculating descriptive statistics (i.e. means and standard deviations) and correlations for the variables being part of the hypotheses. Since the dependent variable in the full structural models is self rated OCBI, peer rated OCBI, self rated OCBO or peer rated OCBO, we present correlation matrices for each of these four variables. These correlation matrices list Pearson correlations, the significance of these correlations¹⁸⁸ and the number of cases which were used to calculate correlations.

¹⁸⁸ Since both positive and negative correlations are possible, we employ a two-tailed test for significance.

I) Means and standard deviations

	N	Mean	Std. Deviation
OCBIself(61,62,63)	462	4.3420	.54882
OCBOself(40,42)	463	4.3456	.53088
OCBIpeer(108,112)	462	3.5682	.77039
OCBOpeer(114,115,116)	462	3.7038	.66540
funO(43,48,53)	463	4.0770	.72038
obligationO(44,49,54)	463	4.5850	.49223
profilingO(45,50,55)	461	3.7777	.99000
avoidanceO(46,51,56)	461	3.4458	1.07337
funI(64,69,74)	462	4.2049	.68932
obligationI(65,70,75)	462	4.4131	.58601
profilingI(66,71,76)	460	2.4616	1.07111
avoidanceI(67,72,77)	460	2.2935	.96576
careerI(68,73,78)	461	2.4375	1.14746
careerO(47,52,57)	462	3.1768	1.16111
IF (99,100,101,102,104)	463	3.6878	.86319
Valid N (listwise)	458		

Descriptive statistics point to three interesting issues. First, the means for self rated OCB are higher than those for peer rated OCB indicating social desirability and/or divergent role conceptions. Second, internal motive scales (fun based and obligation based motivation) have higher means than external motive scales (profiling, obligation and career based motivation). This provides a first tentative hint that internal motivation plays a greater role in influencing OCB than external motivation. Finally, scales for external motivation have the highest standard deviation indicating higher (perceived) population variety than internal motivation.

II) Correlation Matrix for OCBI (self-rated)

		OCBI self	funI	obligationI	profilingI	avoidance I	careerI	IF
OCBIself	Pearson	1	.537(**)	.547(**)	.035	.043	.133(**)	.176(**)
	Correlation							
	Sig. (2-tailed)		.000	.000	.452	.354	.004	.000
	N	462	461	461	459	459	460	462
funI	Pearson	.537(**)	1	.659(**)	.081	.055	.115(*)	.196(**)
	Correlation							
	Sig. (2-tailed)	.000		.000	.082	.241	.014	.000
	N	461	462	462	460	460	461	462
obligationI	Pearson	.547(**)	.659(**)	1	.043	.050	.086	.146(**)
	Correlation							
	Sig. (2-tailed)	.000	.000		.363	.280	.066	.002
	N	461	462	462	460	460	461	462
profilingI	Pearson	.035	.081	.043	1	.669(**)	.660(**)	-.014
	Correlation							
	Sig. (2-tailed)	.452	.082	.363		.000	.000	.766
	N	459	460	460	460	460	460	460
avoidanceI	Pearson	.043	.055	.050	.669(**)	1	.642(**)	-.027
	Correlation							
	Sig. (2-tailed)	.354	.241	.280	.000		.000	.562
	N	459	460	460	460	460	460	460
careerI	Pearson	.133(**)	.115(*)	.086	.660(**)	.642(**)	1	.009
	Correlation							
	Sig. (2-tailed)	.004	.014	.066	.000	.000		.846
	N	460	461	461	460	460	461	461
IF	Pearson	.176(**)	.196(**)	.146(**)	-.014	-.027	.009	1
	Correlation							
	Sig. (2-tailed)	.000	.000	.002	.766	.562	.846	
	N	462	462	462	460	460	461	463

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Analysing the correlation matrix for self rated OCBI reveals three interesting topics. First, OCBI has correlations with internal motivation (both fun and obligation based motivation) and with one form of external motivation (career based motivation). Second, interaktiv fairness is related with both forms of internal motivation and OCB. This finding suggests potential interaction effects. Finally, self rated OCBI is more strongly related with internal motivation (i.e. fun based and obligation based) than with external motivation (weak correlations with career based motivation; no significant correlations with profiling and avoidance based motivation).

III) Correlation Matrix for OCBO (self-rated)

		OCBO self	funO	obligation O	profilingO	avoidance O	careerO	IF
OCBOself	Pearson	1	.446(**)	.471(**)	.301(**)	.221(**)	.283(**)	.122(**)
	Correlation							
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.009
funO	N	463	463	463	461	461	462	463
	Pearson	.446(**)	1	.462(**)	.414(**)	.242(**)	.370(**)	.148(**)
	Correlation							
obligationO	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.001
	N	463	463	463	461	461	462	463
	Pearson	.471(**)	.462(**)	1	.324(**)	.213(**)	.212(**)	.116(*)
profilingO	Correlation							
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.012
	N	463	463	463	461	461	462	463
avoidanceO	Pearson	.301(**)	.414(**)	.324(**)	1	.615(**)	.422(**)	.081
	Correlation							
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.081
careerO	N	461	461	461	461	461	461	461
	Pearson	.221(**)	.242(**)	.213(**)	.615(**)	1	.451(**)	.008
	Correlation							
IF	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.869
	N	461	461	461	461	461	461	461
	Pearson	.283(**)	.370(**)	.212(**)	.422(**)	.451(**)	1	-.008
	Correlation							
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.863
	N	462	462	462	461	461	462	462
	Pearson	.122(**)	.148(**)	.116(*)	.081	.008	-.008	1
	Correlation							
	Sig. (2-tailed)	.009	.001	.012	.081	.869	.863	
	N	463	463	463	461	461	462	463

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

According to the correlation matrix for OCBO self rated, OCBO is related to all five forms of motivation. Yet, the correlations between OCBO self rated and internal motivation are higher than those between OCBO self rated and external motivation. Interactive fairness has significant positive relations with OCBO and internal motivation, but not with external motivation.

IV) Correlation Matrix for OCBI (peer-rated)

		OCBI peer	funI	obligationI	profilingI	avoidance I	careerI	IF
OCBIpeer	Pearson	1	.269(**)	.236(**)	.034	.033	.068	.278(**)
	Correlation							
	Sig. (2-tailed)		.000	.000	.462	.475	.147	.000
funI	N	462	461	461	459	459	460	462
	Pearson	.269(**)	1	.659(**)	.081	.055	.115(*)	.196(**)
	Correlation							
obligationI	Sig. (2-tailed)	.000	.000	.000	.082	.241	.014	.000
	N	461	462	462	460	460	461	462
	Pearson	.236(**)	.659(**)	1	.043	.050	.086	.146(**)
profilingI	Correlation							
	Sig. (2-tailed)	.000	.000	.000	.363	.280	.066	.002
	N	461	462	462	460	460	461	462
avoidanceI	Pearson	.034	.081	.043	1	.669(**)	.660(**)	-.014
	Correlation							
	Sig. (2-tailed)	.462	.082	.363		.000	.000	.766
careerI	N	459	460	460	460	460	460	460
	Pearson	.033	.055	.050	.669(**)	1	.642(**)	-.027
	Correlation							
IF	Sig. (2-tailed)	.475	.241	.280	.000		.000	.562
	N	459	460	460	460	460	460	460
	Pearson	.068	.115(*)	.086	.660(**)	.642(**)	1	.009
	Correlation							
	Sig. (2-tailed)	.147	.014	.066	.000	.000		.846
	N	460	461	461	460	460	461	461
	Pearson	.278(**)	.196(**)	.146(**)	-.014	-.027	.009	1
	Correlation							
	Sig. (2-tailed)	.000	.000	.002	.766	.562	.846	
	N	462	462	462	460	460	461	463

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The correlations for OCBI peer rated reveal a similar pattern than the correlations for self rated OCBI. Both peer and self rated OCBI have significant positive correlations with interactive fairness, fun based motivation and obligation based motivation. Profiling, avoidance and career based motivation have neither significant relations with peer rated OCBI nor with interactive fairness.

V) Correlation Matrix for OCBO (peer-rated)**Correlations**

		OCBO peer	funO	obligatio nO	profiling O	avoidan ceO	careerO	IF
OCBOpeer	Pearson Correlation	1	.216(**)	.204(**)	.076	.100(*)	.059	.353(**)
	Sig. (2-tailed)		.000	.000	.103	.032	.209	.000
	N	462	462	462	460	460	461	462
funO	Pearson Correlation	.216(**)	1	.462(**)	.414(**)	.242(**)	.370(**)	.148(**)
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.001
	N	462	463	463	461	461	462	463
obligationO	Pearson Correlation	.204(**)	.462(**)	1	.324(**)	.213(**)	.212(**)	.116(*)
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.012
	N	462	463	463	461	461	462	463
profilingO	Pearson Correlation	.076	.414(**)	.324(**)	1	.615(**)	.422(**)	.081
	Sig. (2-tailed)	.103	.000	.000		.000	.000	.081
	N	460	461	461	461	461	461	461
avoidanceO	Pearson Correlation	.100(*)	.242(**)	.213(**)	.615(**)	1	.451(**)	.008
	Sig. (2-tailed)	.032	.000	.000	.000		.000	.869
	N	460	461	461	461	461	461	461
careerO	Pearson Correlation	.059	.370(**)	.212(**)	.422(**)	.451(**)	1	-.008
	Sig. (2-tailed)	.209	.000	.000	.000	.000		.863
	N	461	462	462	461	461	462	462
IF	Pearson Correlation	.353(**)	.148(**)	.116(*)	.081	.008	-.008	1
	Sig. (2-tailed)	.000	.001	.012	.081	.869	.863	
	N	462	463	463	461	461	462	463

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Peer rated OCBO is positively related to fun based and obligation based motivation and - to a lower degree - to avoidance based motivation. The relationship between peer rated OCBO and interactive fairness seems to be stronger than it is the case with self rated OCBO.

3.3.2 Measurement models

In order to construct good measurement models that link observable behaviour (i.e. response to questionnaire items) and latent constructs (i.e. OCBI/O, five forms of motivation, interactive fairness); we adopt a three steps procedure.

First, we check reliabilities by calculating Cronbach alphas for OCBI/O, motivation and interactive fairness.

Second, to find latent constructs which represent observable variables in an optimal way, explorative factor analysis is employed. Since it is hotly disputed whether OCB should be modelled as first (i.e. OCB as a single latent construct) or as second order (i.e. sub-constructs like OCBI/ OCBO) construct and whether OCB is best measured with self or with peer ratings, we restrict our discussion of explorative factor analysis to OCBI/ OCBO. However, similar kinds of analyses were performed for the other variables. Factor analysis for interactive fairness reveals a clear one factor structure. For both OCBI and OCBO, fun-based, obligation based, and two forms of external motivation can be distinguished. In the case of OCBO, explorative factor analysis suggests one latent factor for profiling and avoidance based motivation. For OCBI, career based motivation cannot be distinguished clearly from the other forms of motivation. Since all five motivational forms can be distinguished either in OCBO or in OCBI and since we are interested in testing the proposed motivational framework, we integrate all five motivational forms in the subsequent analyses.

Finally, confirmative factor analysis is employed to test the fit of measurement models. Like in the case of explorative factor analysis, we restrict our attention to OCBI/O self and peer rated.

Before presenting and discussing empirical results, we need to address an important caveat. Ideally, explorative factor analysis should first be performed on one dataset. In the second step, the extracted factor structure is to be tested employing confirmative factor analysis on a different data set. In principal, this procedure would also be possible in the present study. Data from the pretest are analysed using explorative factor analysis. The resulting factor structure can be tested with data from the full scale survey. However, results from the pretest lead to substantial revisions of the questionnaire. Especially, the scales for OCBI and OCBO were adapted. For example, the questionnaire from the pretest only contained peer rated OCB and was based on a different scale. Hence, the measurement instruments from the pretest and from the full scale survey are too different to justify a transfer of empirically derived factor structures from one dataset to the other. Another possibility to perform explorative and

confirmative factor analyses on different data sets is to split the dataset from the full scale survey into two parts. Explorative factor analysis is performed on the first subset and confirmative factor analysis on the second subset. In order to test the plausibility of the results derived from performing confirmative and explorative factor analysis on the same dataset, we conducted explorative factor analysis on the data of one division and, subsequently, confirmative factor analysis on the data of the remaining three divisions. Since the resulting factor structure and fit measures are essentially the same, we decide to perform all analyses in the following sections with the full data set (which has the advantage of having a higher n to work with).

I) Reliabilities of the variables employed in the analyses (Cronbach alphas)

The following table lists Cronbach alphas for OCBI/O, motives types and general interactive fairness (note that the entries for Cronbach alphas are values after scale correction):

<i>OCBI (self)</i>	<i>0.714</i>	<i>OCBO (self)</i>	<i>0.570</i>
<i>OCBI (peer)</i>	<i>0.651</i>	<i>OCBO (peer)</i>	<i>0.792</i>
<i>Fun-based motivation (OCBI)</i>	<i>0.775</i>	<i>Fun-based motivation (OCBO)</i>	<i>0.730</i>
<i>Obligation-based motivation (OCBI)</i>	<i>0.727</i>	<i>Obligation-based motivation (OCBO)</i>	<i>0.675</i>
<i>Profiling-based motivation (OCBI)</i>	<i>0.926</i>	<i>Profiling-based motivation (OCBO)</i>	<i>0.855</i>
<i>Avoidance based motivation (OCBI)</i>	<i>0.915</i>	<i>Avoidance based motivation (OCBO)</i>	<i>0.877</i>
<i>Career based motivation (OCBI)</i>	<i>0.955</i>	<i>Career based motivation (OCBO)</i>	<i>0.932</i>
<i>Fairness (general interactive)</i>	<i>0.902</i>		

Reliabilities according to Cronbach's alphas range from excellent (e.g. career based motivation OCBI) over good (e.g. peer rated OCBO) to scanty acceptable (e.g. self rated OCBO)¹⁸⁹. Most problematic are the values for peer rated OCBI and self rated OCBO. In both cases, one item was removed from the original scale (item number 109 for peer rated OCBI and item number 41 for self rated OCBO). In the case of self rated OCBO, reliability analyses

¹⁸⁹ At this point, the problem arises which criteria should be employed to evaluate Cronbach alphas. One possibility is to compare empirically derived reliabilities with those from the original scale. However, due to translation and the five-step questionnaire construction process (cf. p. 184), the number and wording of the original scales were substantially altered. Therefore, Cronbach alphas from original scales do not qualify well as evaluation criteria. Rather, we stick to established "rules of thumb" to rate the quality of empirically derived Cronbach alphas.

revealed that dropping item number 41 increases Cronbach Alpha (from 0.545 to 0.569). As for peer rated OCBI, feedback from participants indicated that item 109 is considered to belong to a different semantic categorie than items 108 and 112. As a consequence, Cronbach alpha for the peer rated OCBI scale dropped from 0.77 to 0.65. Yet, since at least two items are needed to conduct structural equation modelling and since fit measures of factor analyses are good, we decide to continue the analyses with all four forms of OCB.

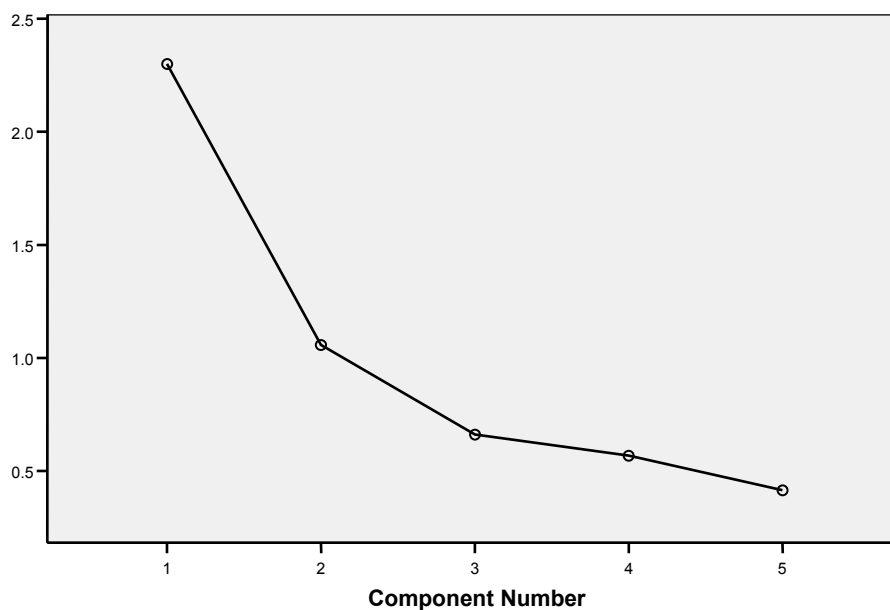
II) Explorative Factor Analysis for OCB (self rated and peer rated)

For both self rated and peer rated OCB items, results of explorative factor analysis are exposed in two figures and one table. It starts with a screeplott, followed by a rotated component matrix (extraction method: principal component analysis; rotation method: varimax with Kaiser Normalization). Finally, a component plot is presented.

IIa) OCB self rated

Screeplott:

Eigenvalue



Rotated Component Matrix:

	Component	
	1	2
OCBOSelf(f40)		.772
OCBOSelf(f42)		.860
OCBISelf(f61)	.701	
OCBISelf(f62)	.877	
OCBISelf(f63)	.775	

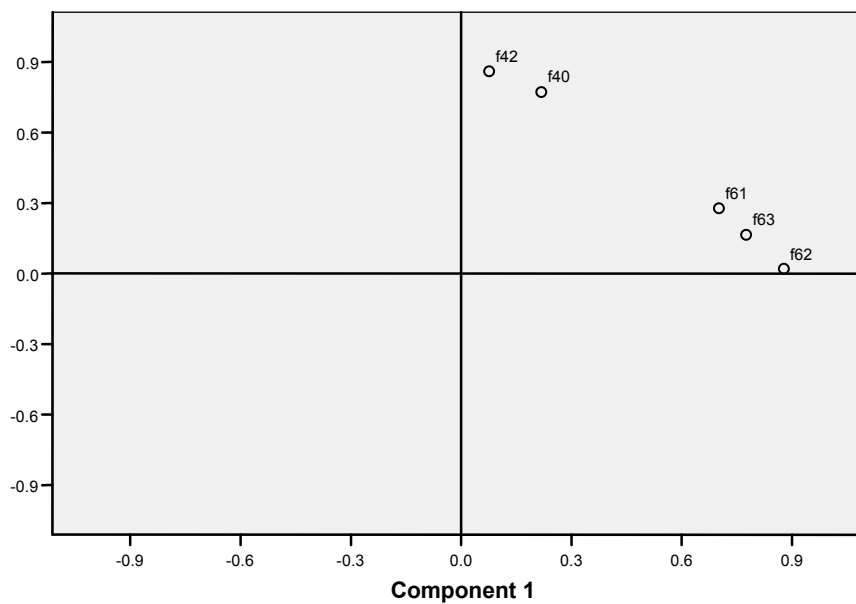
Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Component Plot:

Component 2

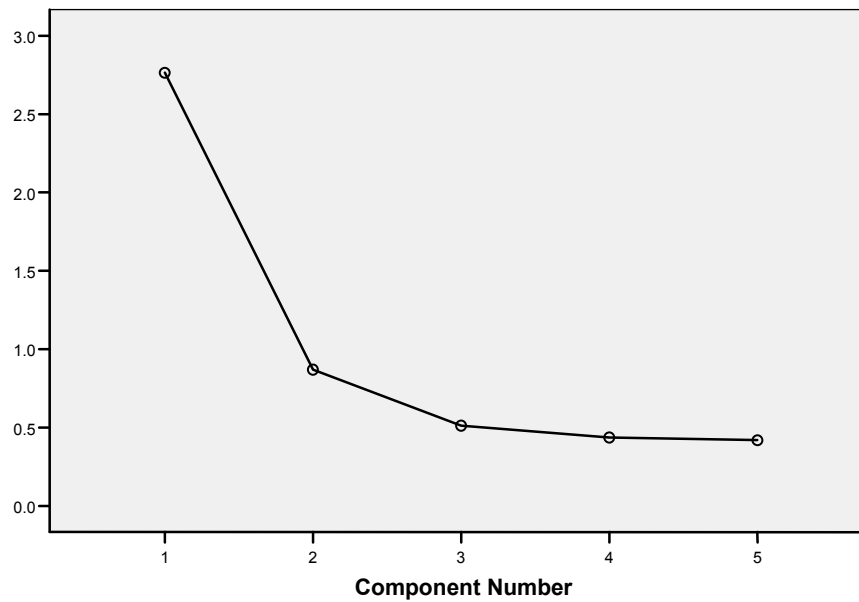


The screeplot, the rotated component matrix and the component plot reveal a clear two factor structure for self rated OCB. According to the component plot and the rotated component matrix, these two factors can be interpreted as internal and external motivation (items measuring internal motivation load on one factor and items measuring external motivation load on the other factor).

II b) OCB peer rated

Screepplot:

Eigenvalue



Rotated Component Matrix:

	Component	
	1	2
OCBIpeer(f108)	.147	.872
OCBIpeer(f112)	.301	.782
OCBOpeer(f114)	.803	.248
OCBOpeer(f115)	.854	.110
OCBOpeer(f116)	.768	.331

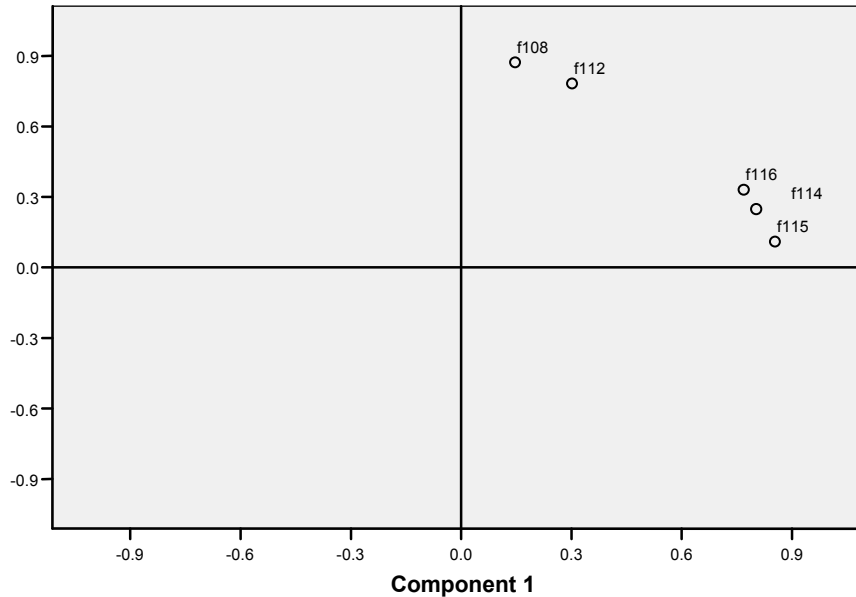
Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

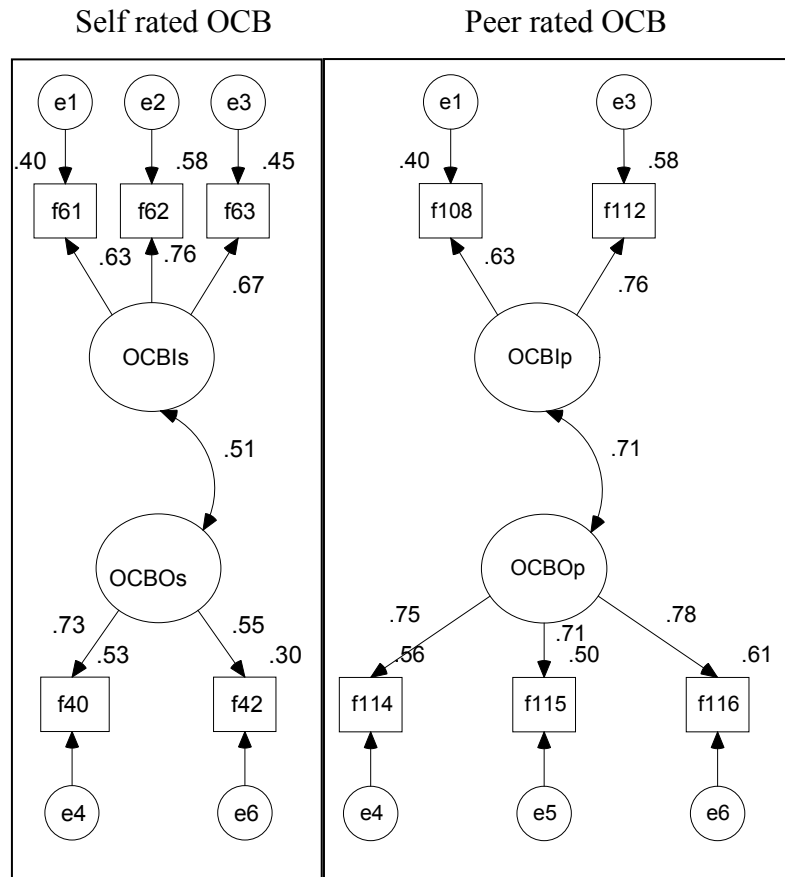
Component Plot

Component 2



Explorative factor analysis reveals a similar picture for peer rated OCB as we've seen in the case of self rated OCB. For example, the component plot shows a clear two factor structure. However, according to the scree plot, only one factor has an eigenvalue greater than one. Since the eigenvalue of the second component is only lightly smaller than one and since the items load neatly on the presumed factors, we decide to continue with two factors for peer rated OCB.

III) Confirmative Factor Analysis (Confirmatory Factor Analysis) for OCB (OCBI and OCBO):



Both the fit measures for the measurement models of self rated and peer rated OCB are very good. For self rated OCB: NFI=0.940, CFI=0.947, RMSEA=0.112, p close= 0.004 CMin/Df=6.823. And for peer rated OCB: NFI=0.990, CFI=0.996, RMSEA: 0.073, P close: 0.586 CMin/DF= 1.670.

The correlation between OCBI and OCBO is 0.51 in the case of self ratings and 0.71 in the case of peer ratings. The Pearson correlations show a similar pattern; albeit they are smaller (OCBI_s-OCBO_s = 0.36 OCBI_p-OCBO_p = 0.50). This difference may be attributed to divergent model assumptions (e.g. structural equation modelling attenuates for measurement error). Since no correlation between OCBI and OCBO is greater than 0.8, discriminant validity is ensured.

Finally, the difference between the means of OCBI self (mean=4.34) and OCBI peer (mean=3.57):as well as the difference between the means of OCBO self (mean=4.35) and OCBO peer (mean=3.70) are highly significant. This finding suggests biases either due to social desirability or due to divergent role conceptions.

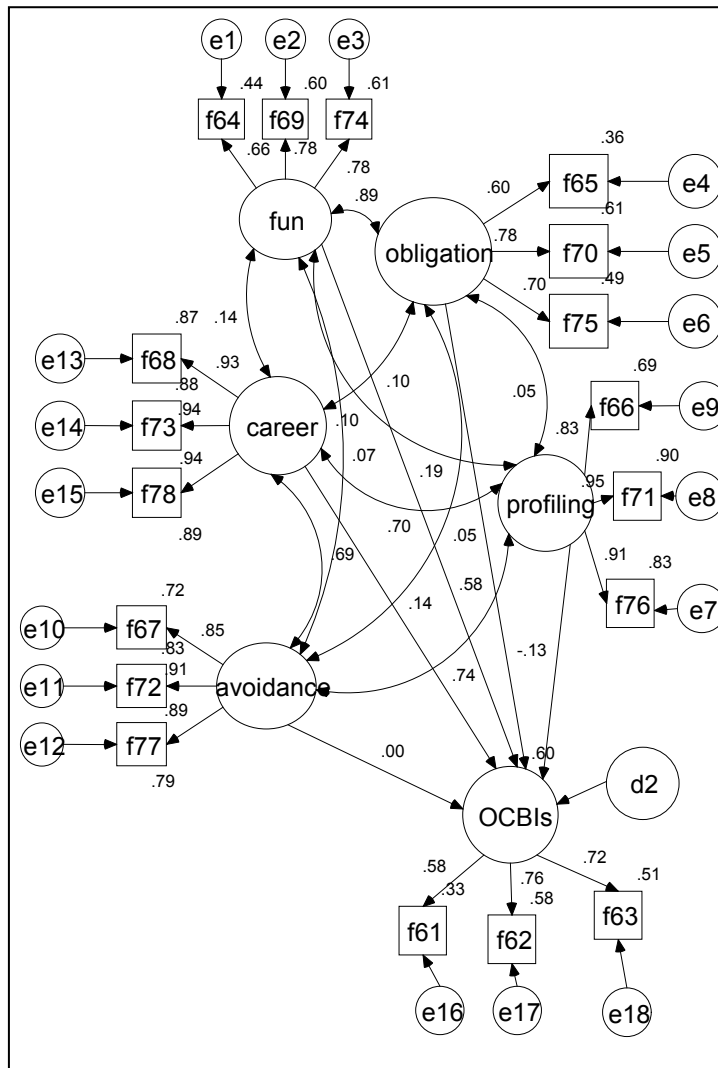
3.3.3 Structural models

To test the hypotheses, we fit a series of full structural models. In the first step, the influence of the five motivational forms (i.e. fun based, obligation based, profiling based, avoidance based and career based motivation) on OCBI and OCBO is investigated. In the second step, we add interactive fairness as an exogenous variable and test the joint influence of interactive fairness and motives on OCBI/OCBO.

I) Structural model: motives – OCBI/OCBO

The following section presents main results for the influence of the proposed five motivational forms on OCBI (self- and peer rated) and on OCBO (self- and peer rated). In each case, we start with a graphical representation of the fitted full structural model, followed by a table containing estimated of path coefficients. We continue with fit measures for the full structural model. To conclude, we present results from multivariate regression analysis with OCB as dependent and the five motivational forms as independent variables.

a) OCBI self rated



Path coefficients:

	Estimate	S.E.	C.R.	P
OCBI<--- avoidance	-.001	.044	-.022	.982
OCBI<--- career	.062	.033	1.898	.058
OCBI<--- fun	.193	.189	1.020	.308
OCBI<--- obligation	.742	.253	2.935	.003
OCBI<--- profiling	-.070	.044	-1.579	.114

Fit measures: NFI: 0.864 CFI: 0.879 RMSEA: 0.11

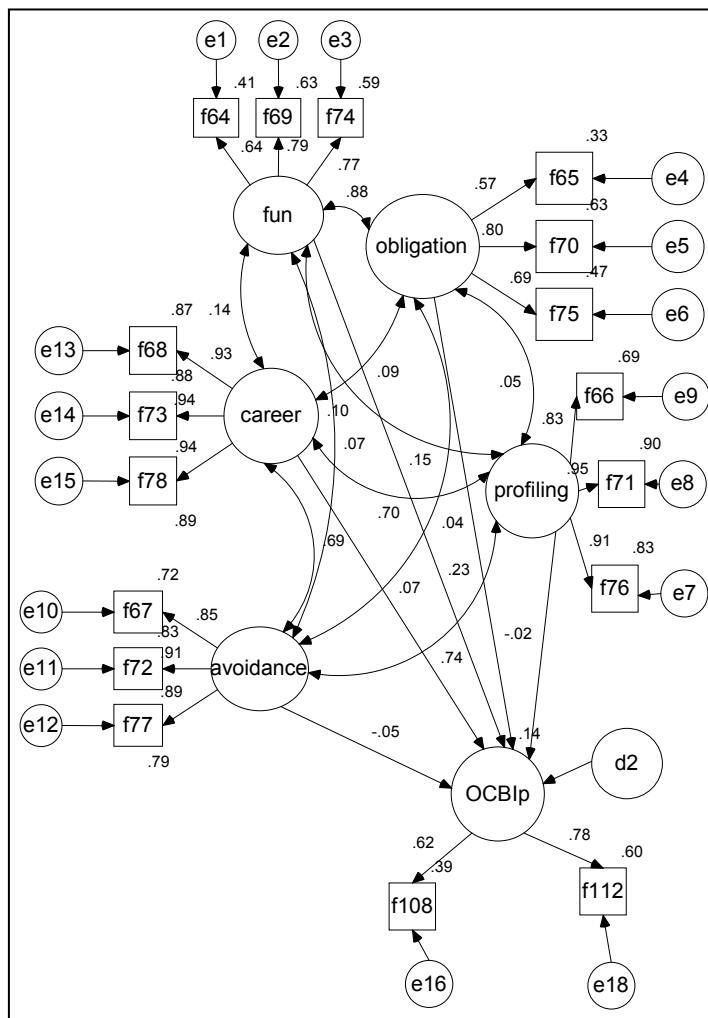
Multivariate regression:

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.002	.158		12.637	.000
	funl(64,69,74)	.234	.038	.306	6.123	.000
	obligationl(65,70,75)	.304	.045	.338	6.787	.000
	profilingl(66,71,76)	-.037	.027	-.075	-1.357	.176
	avoidancel(67,72,77)	-.015	.030	-.027	-.493	.622
	careerl(68,73,78)	.061	.025	.131	2.446	.015

a Dependent Variable: OCBIself(61,62,63)

F value: 51,4 sig: 0.00 r square (adjusted): 0.355

b) OCBI peer rated



Path coefficients:

	Estimate	S.E.	C.R.	P
OCBIp<--- avoidance	-.033	.071	-.462	.644
OCBIp<--- career	.044	.054	.818	.413
OCBIp<--- fun	.208	.295	.705	.481
OCBIp<--- obligation	.405	.400	1.012	.312
OCBIp<--- profiling	-.015	.072	-.206	.837

Fit measures: NFI: 0.864 CFI: 0.879 RMSEA: 0.11 p close

Multivariate regression

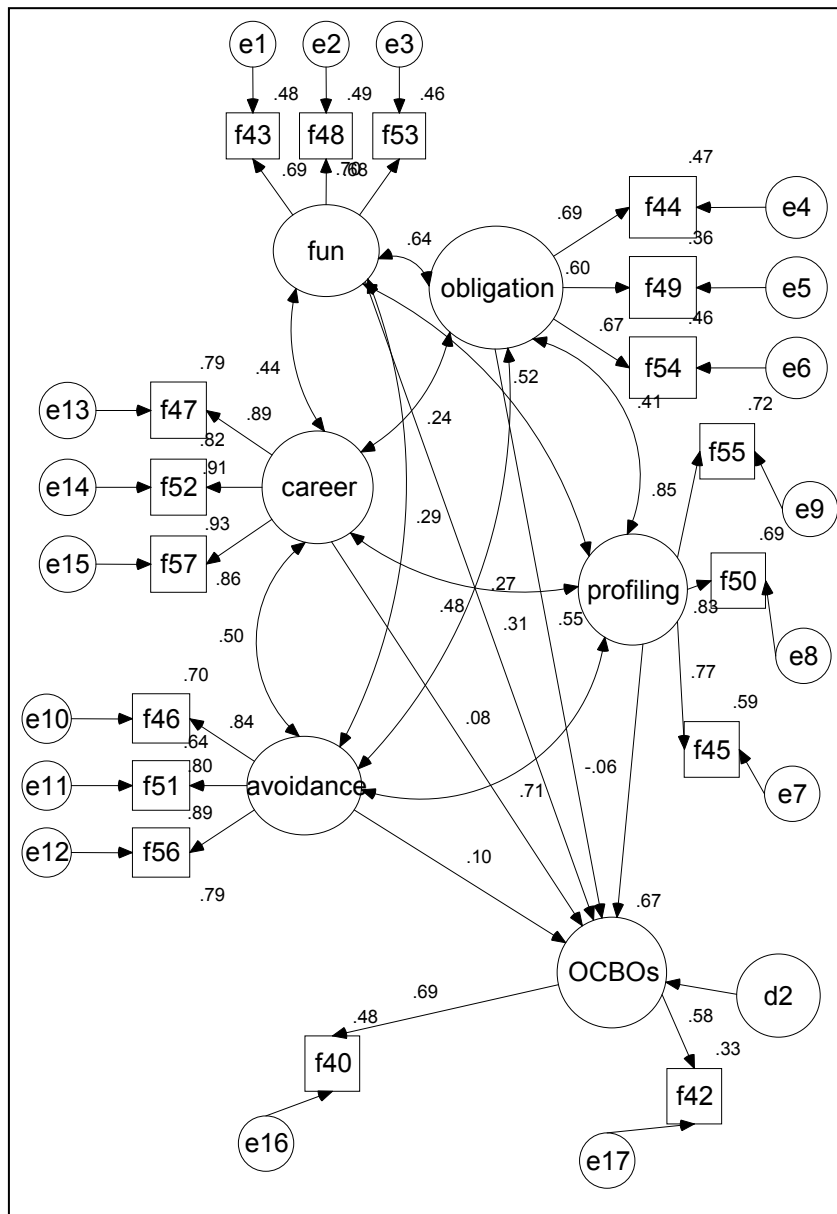
Coefficients(a)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.967	.279		7.046	.000
funl(64,69,74)	.224	.067	.200	3.351	.001
obligationl(65,70,75)	.140	.078	.106	1.784	.075
profilinl(66,71,76)	-.017	.047	-.023	-.355	.723
avoidancel(67,72,77)	-.008	.052	-.010	-.161	.872
careerl(68,73,78)	.044	.043	.066	1.028	.305

a Dependent Variable: OCBIpeer(108,112)

F= 8.3 sig= 0.00 r square adjusted = 0.074

c) OCBO self-rated



Path coefficients:

	Estimate	S.E.	C.R.	P
OCBOs<--- fun	.168	.065	2.592	.010
OCBOs<--- career	.027	.024	1.091	.275
OCBOs<--- avoidance	.036	.035	1.042	.298
OCBOs<--- obligation	.517	.106	4.880	***
OCBOs<--- profiling	-.026	.042	-.608	.543

Fit measures: NFI: 0.859 CFI: 0.878 RMSEA: 0.105

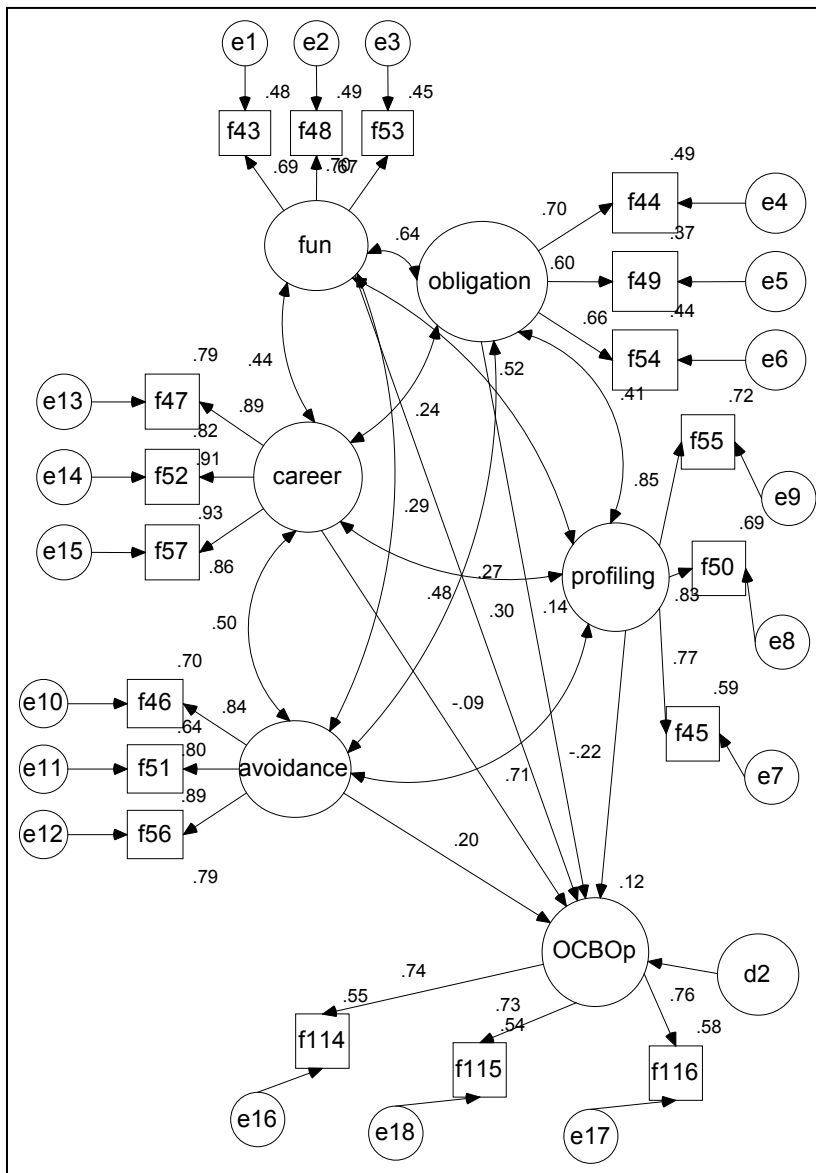
Multivariate regression:

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.780	.199		8.957	.000
	funO(43,48,53)	.175	.035	.238	4.957	.000
	obligationO(44,49,54)	.345	.048	.320	7.132	.000
	profilingO(45,50,55)	.023	.029	.043	.809	.419
	avoidanceO(46,51,56)	.013	.026	.026	.495	.621
	careerO(47,52,57)	.044	.021	.096	2.063	.040

a Dependent Variable: OCBOself(40,42)

F = 39.2 sig= 0.00 rsquared (adjusted) = 0.30

d) OCBO peer rated



Path coefficients:

	Estimate	S.E.	C.R.	P
OCBOp<--- fun	.263	.100	2.633	.008
OCBOp<--- career	-.050	.038	-1.309	.191
OCBOp<--- avoidance	.118	.057	2.071	.038
OCBOp<--- obligation	.212	.144	1.471	.141
OCBOp<--- profiling	-.143	.068	-2.089	.037

Fit measures: NFI: 0.864 CFI: 0.886 RMSEA: 0.096

Multivariate regression:

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.246	.288		7.811	.000
	funO(43,48,53)	.171	.051	.186	3.353	.001
	obligationO(44,49,54)	.185	.070	.137	2.649	.008
	profilingO(45,50,55)	-.060	.042	-.089	-1.439	.151
	avoidanceO(46,51,56)	.061	.037	.099	1.652	.099
	careerO(47,52,57)	-.023	.031	-.040	-.742	.459

a Dependent Variable: OCBOpeer(114,115,116)

F = 6.845 sig = 0.00 rsquare adjusted = 0.06

The results from analysing the influence of motivational forms on OCBI/O can be summarized in four points. *First*, the fit measures for both structural models and multivariate regression are good. There aren't any substantial differences in model fit between OCBI and OCBO or between peer rated OCB and self rated OCB. *Second*, the variance explained in the dependent variable is much higher in the models for self rated OCB than in the models for peer rated OCB. Concretely, the five motivational forms explain about 36 % of the variance in self- rated OCB and about 7% of the variance in peer rated OCB. *Third*, the pattern of correlations between the motivational forms corresponds to the proposed ordering of these motivational forms on the self determination continuum. I.e. those motivational forms that are neighbours on the motivational continuum have higher correlations than the correlations between more distant forms on the self-determination continuum. However, two specific correlations are not exactly in line with the gradual order imposed by the self determination continuum. The correlation between fun based and career based motivation is higher than it should be and the correlation between obligation and profiling based motivation is smaller than expected. *Finally*, obligation based and fun based motivation plays an important role for OCBI. Career based motivation also has an influence on OCBI (although smaller than obligation and fun based motivation); whereas profiling and avoidance based motivation don't play a role as influencing factors. Both obligation based and fun based motivations are also important predictors for OCBO. In contrast to the case of OCBI, all three forms of external motivation (i.e. profiling, avoidance and career based motivation) have a positive – yet smaller - impact on OCBO.

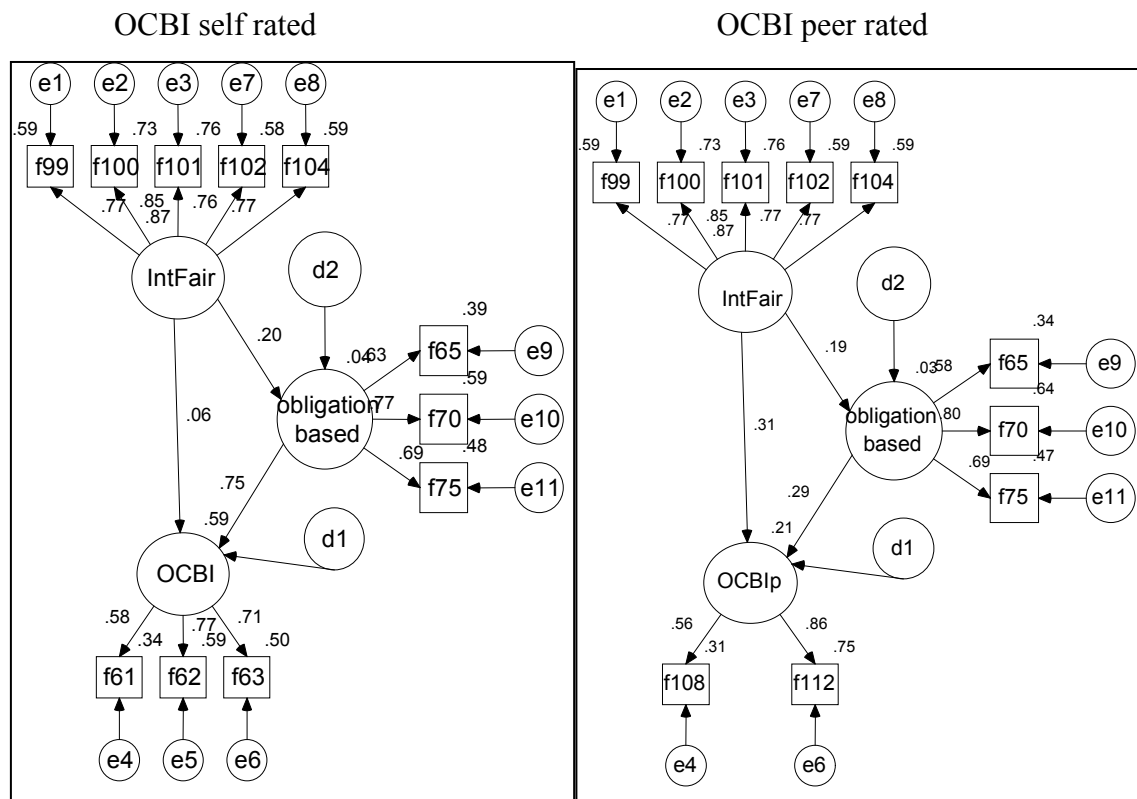
II) Structural models: interpersonal fairness –motivation – OCBI/OCBO

In order to test whether motivation mediates the relation between interactive fairness and OCBI/O, we fit a series of mediated structural models. Only those motivational forms that have been found to exert a significant influence in previous analyses are included in the models. I.e., for OCBI (self and peer rated) fun based, obligation and career based motivation are considered. For OCBO (self and peer rated) all motivational forms are taken into account. Usually, testing for mediating effects involves four steps (Baron & Kenny 1986). First, it has to be shown that the independent variable (i.e. interactive fairness) exerts influence on the dependent variable (i.e. OCBI/O). Second, the independent variable (i.e. interactive fairness) has an impact on the mediating variable (i.e. motivation). Third, the mediating variable (i.e. motivation) influences the dependent variable (i.e. OCBI/O)¹⁹⁰. Finally, a test of significance is employed to determine if the mediator variable “carries over” the effect from independent to dependent variable.

In order to prevent “information overload”, we only depict the path diagrams of the complete mediation models (i.e. models that include independent, mediating and dependent variables). However, for all these models, steps one to four have been tested using adapted structural equation models. The results of the sobel tests are added to the fit measures in the presentation of the empirical results below.

¹⁹⁰ More precisely: The mediating variable influences the dependent variable even if we control for the impact of the independent variable.

a) Interactive fairness fairness – obligation based motivation - OCBI



Path coefficients (self):

	Estimate	S.E.	C.R.	P
obligation_based <--- IntFair	.103	.030	3.462	***
OCBI <--- obligation_based	.911	.104	8.727	***
OCBI <--- IntFair	.035	.031	1.152	.249

Fit measures: NFI: 0.892 CFI: 0.907 RMSEA: 0.1

Sobel Test Statistic: 4.90 (p = 0.000)

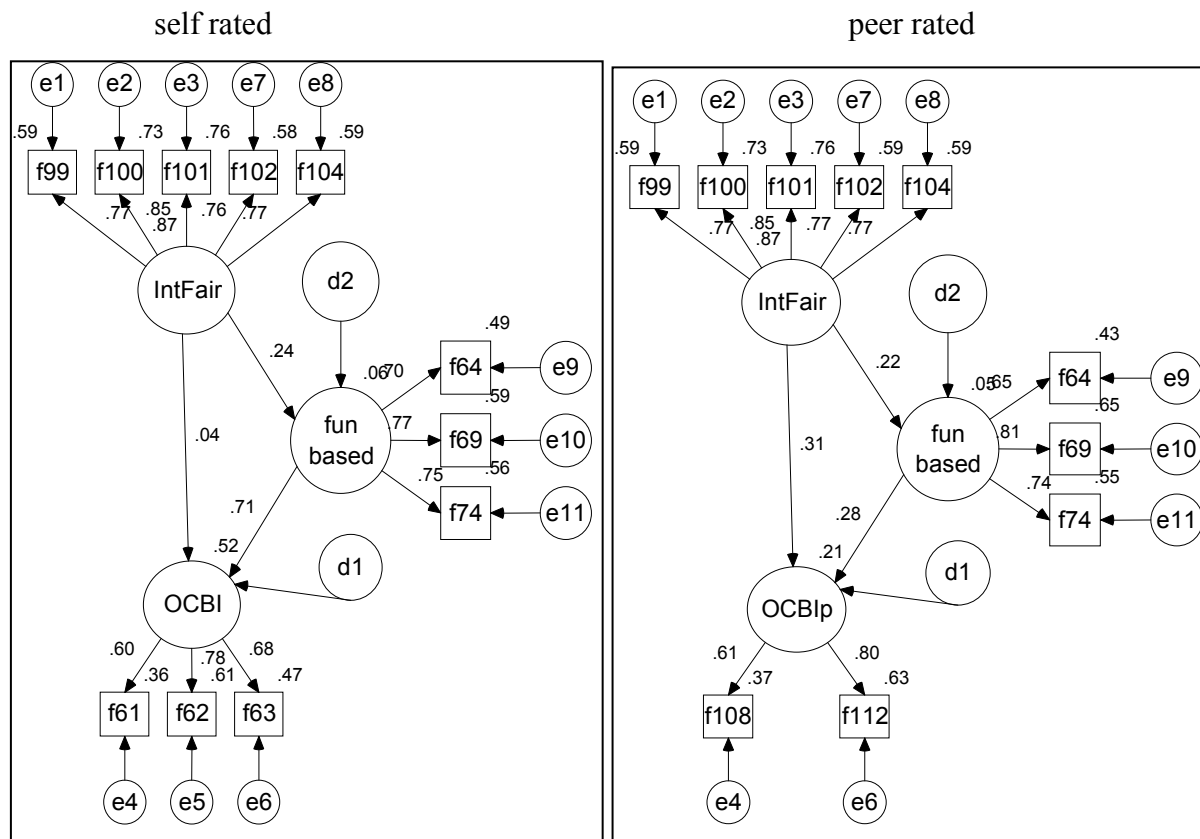
Path coefficients (peer):

	Estimate	S.E.	C.R.	P
obligation_based <--- IntFair	.088	.027	3.215	.001
OCBIp <--- obligation_based	.567	.123	4.594	***
OCBIp <--- IntFair	.282	.051	5.530	***

Fit measures: NFI: 0.935 CFI: 0.949 RMSEA: 0.082

Sobel Test Statistic: 2.24 (p = 0.025)

b) Interactive fairness – fun based motivation – OCBI



Path coefficients (self):

	Estimate	S.E.	C.R.	P
fun_based <--- IntFair	.161	.038	4.210	***
OCBI <--- fun_based	.638	.070	9.146	***
OCBI <--- IntFair	.022	.030	.723	.469

NFI: 0.890 CFI = 0.904 RMSEA: 0.11

Sobel Test Statistic: 5.36 (p = 0.000)

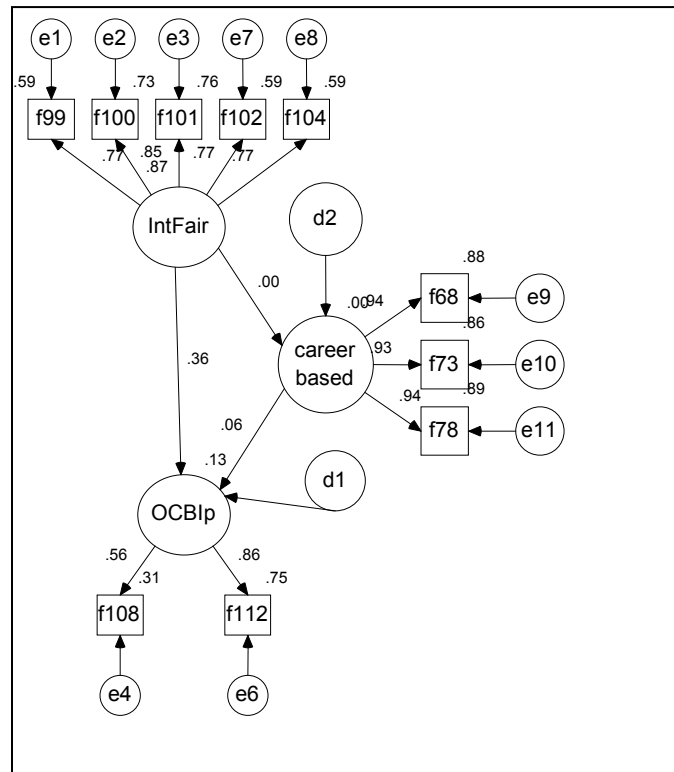
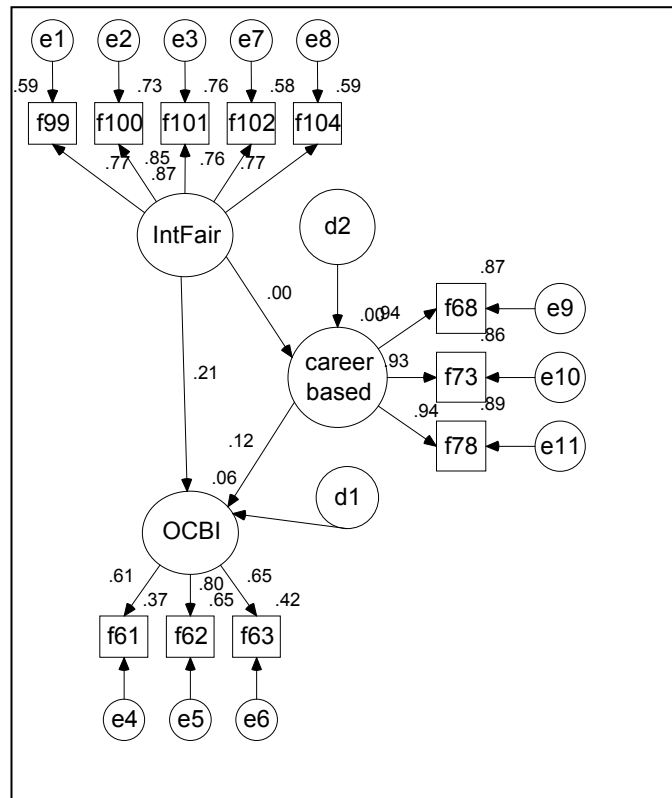
Path coefficients (peer):

	Estimate	S.E.	C.R.	P
fun_based <--- IntFair	.140	.036	3.952	***
OCBIp <--- fun_based	.383	.086	4.465	***
OCBIp <--- IntFair	.264	.053	4.980	***

NFI: 0.939 CFI = 0.953 RMSEA: 0.081

Sobel Test Statistic: 2.87 (p = 0.000)

c) Interactive fairness – career based motivation – OCBI



Path Coefficients (self rated):

	Estimate	S.E.	C.R.	P
career_based <--- IntFair	.002	.069	.030	.976
OCBI <--- career_based	.051	.025	2.036	.042
OCBI <--- IntFair	.118	.033	3.551	***

Fit measures: NFI: 0.947 CFI: 0.959 RMSEA: 0.084

Sobel Test Statistic: 0.000 (p = 1)

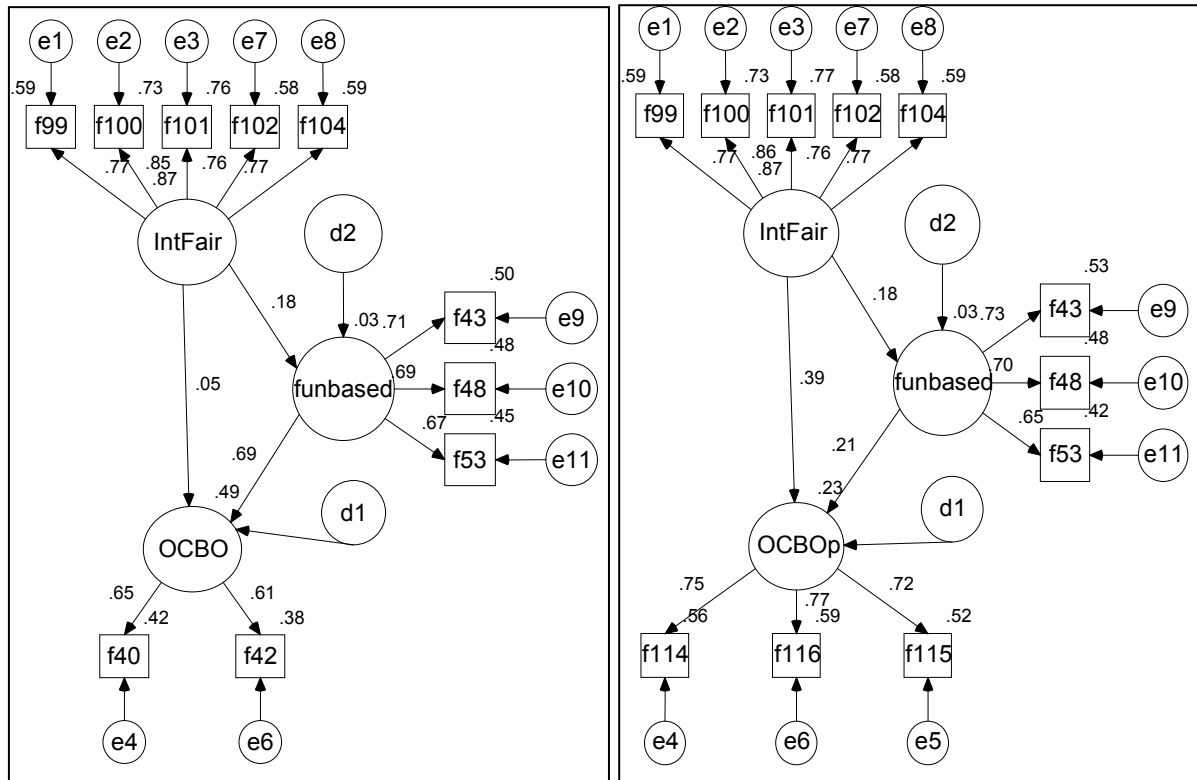
Path Coefficients (peer rated):

	Estimate	S.E.	C.R.	P
career_based<--- IntFair	-.002	.069	-.023	.982
OCBIp <--- career_based	.039	.035	1.120	.263
OCBIp <--- IntFair	.331	.052	6.363	***

Fit measures: NFI: 0.958 CFI: 0.968 RMSEA: 0.082

Sobel Test Statistic: 0.00 (p = 1)

d) Interactive fairness – fun-based motivation - OCBO



Path coefficients (self):

	Estimate	S.E.	C.R.	P
funbased <--- IntFair	.158	.049	3.210	.001
OCBO <--- funbased	.394	.054	7.235	***
OCBO <--- IntFair	.024	.030	.808	.419

Fit measures: NFI: 0.937 CFI: 0.951 RMSEA: 0.08

Sobel Test Statistic: 3.53 (p = 0.000)

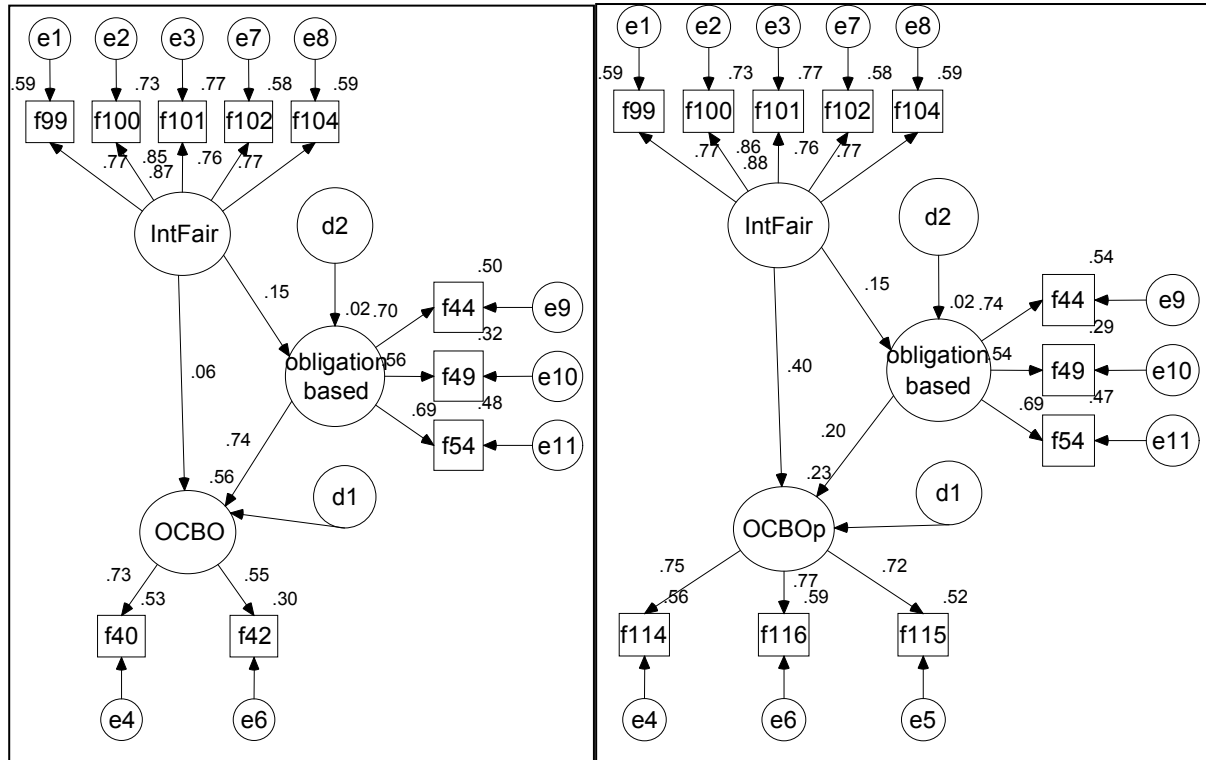
Path coefficients (peer):

	Estimate	S.E.	C.R.	P
funbased <--- IntFair	.163	.051	3.208	.001
OCBOp <--- funbased	.182	.051	3.552	***
OCBOp <--- IntFair	.296	.043	6.958	***

Fit measures: NFI: 0.940 CFI: 0.957 RMSEA: 0.071

Sobel Test Statistic: 2.68 (p = 0.001)

e) Interactive fairness – obligation based motivation - OCBO



Path coefficients (self):

	Estimate	S.E.	C.R.	P
obligation_based <--- IntFair	.075	.030	2.521	.012
OCBO <--- obligation_based	.640	.096	6.668	***
OCBO <--- IntFair	.025	.025	.970	.332

Fit measures: NFI: 0.936 CFI: 0.951 RMSEA: 0.079

Sobel Test Statistic: 4.20 (p = 0.000)

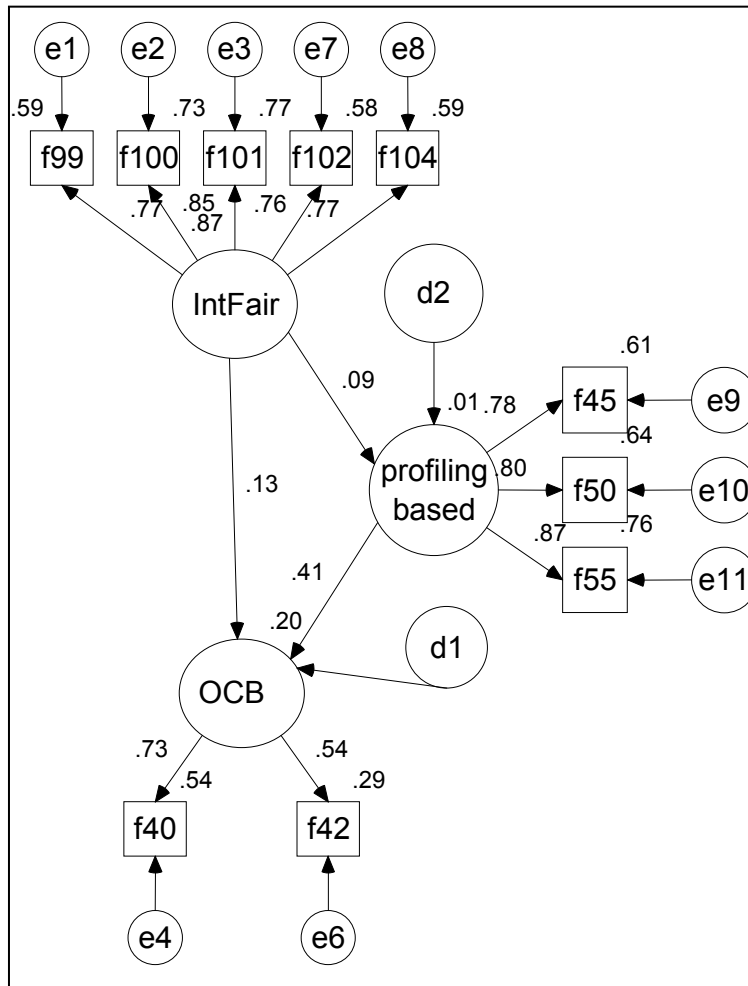
Path coefficients (peer):

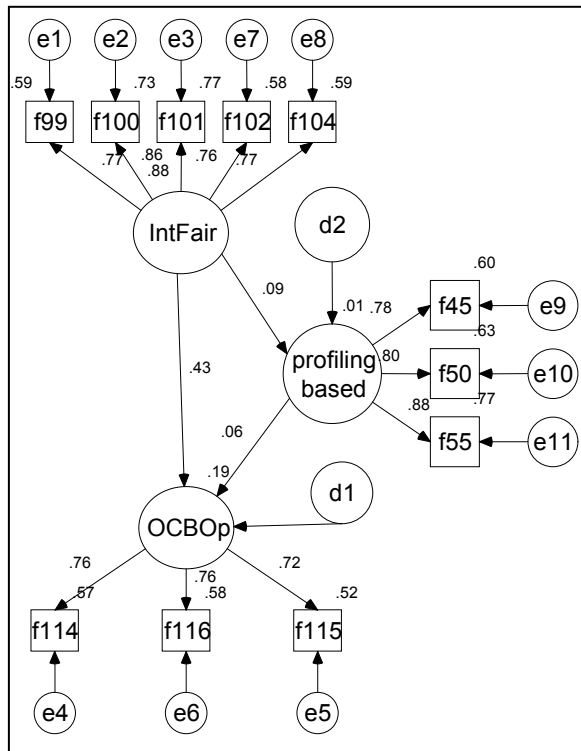
	Estimate	S.E.	C.R.	P
obligation_based <--- IntFair	.078	.031	2.525	.012
OCBop <--- obligation_based	.292	.091	3.224	.001
OCBop <--- IntFair	.304	.043	7.145	***

Fit measures: NFI: 0.941 CFI: 0.958 RMSEA: 0.070

Sobel Test Statistic: 2.00 (p = 0.045)

f) Interactive fairness – profiling based motivation – OCBO





Path coefficients (self):

	Estimate	S.E.	C.R.	P
profiling_based <--- IntFair	.087	.053	1.648	.099
OCBO <--- profiling_based	.179	.037	4.779	***
OCBO <--- IntFair	.055	.028	1.958	.050

Fit measures: NFI: 0.948 CFI: 0.961 RMSEA: 0.076

Sobel Test Statistic: 1.68 (p = 0.093)

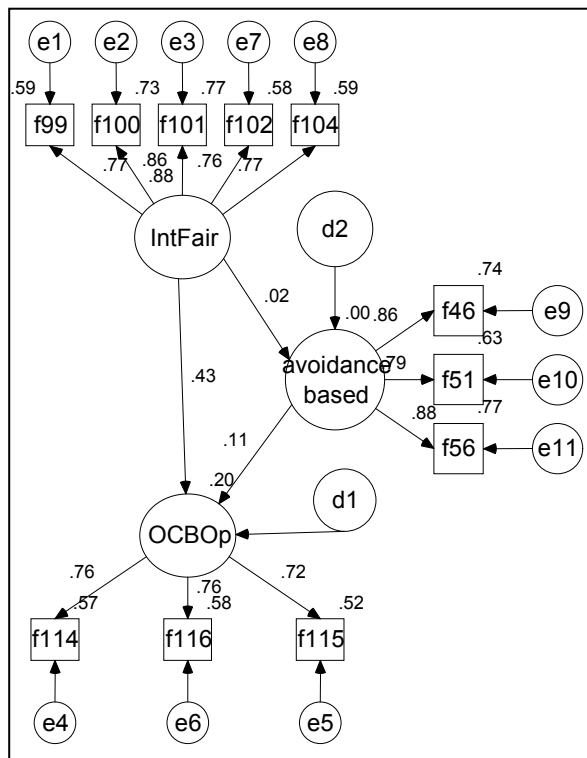
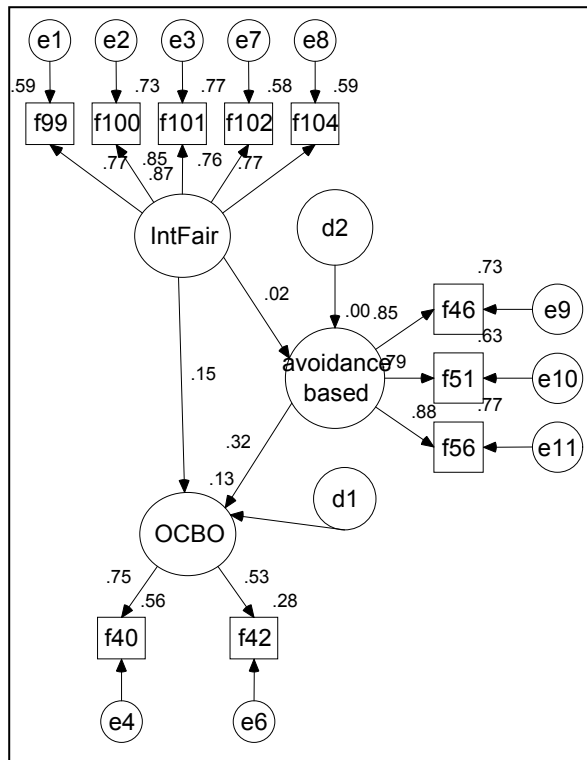
Path coefficients (peer):

	Estimate	S.E.	C.R.	P
profiling_based <--- IntFair	.087	.053	1.644	.100
OCBOp <--- profiling_based	.043	.040	1.087	.277
OCBOp <--- IntFair	.320	.043	7.472	***

Fit measures: NFI: 0.951 CFI: 0.966 RMSEA: 0.067

Sobel Test Statistic: 1.12 (p = 0.261)

g) Interactive fairness – avoidance based motivation – OCBO



Path coefficients (self):

	Estimate	S.E.	C.R.	P	Label
avoidance_based <--- IntFair	.027	.066	.413	.680	par_9
OCBO <--- avoidance_based	.106	.028	3.752	***	par_8
OCBO <--- IntFair	.065	.030	2.139	.032	par_10

Fit measures: NFI: 0.950 CFI: 0.963 RMSEA: 0.076

Sobel Test Statistic: 0.30 (p = 0.762)

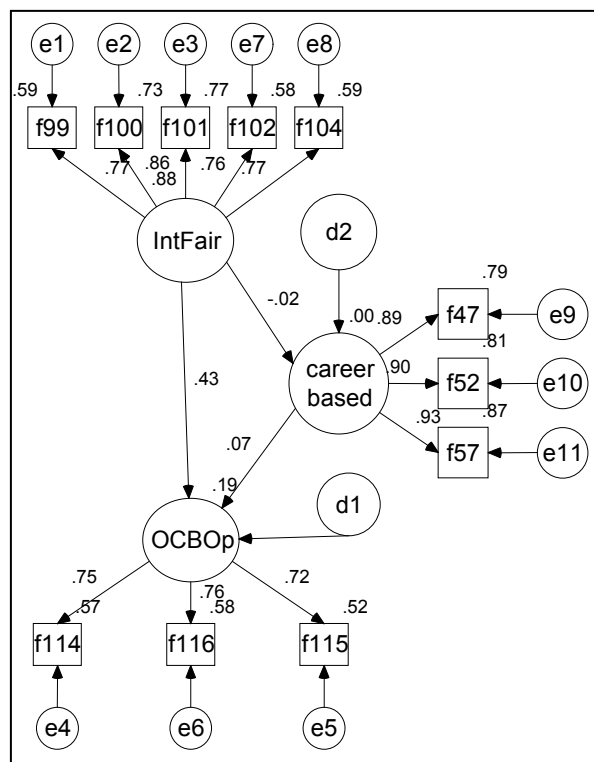
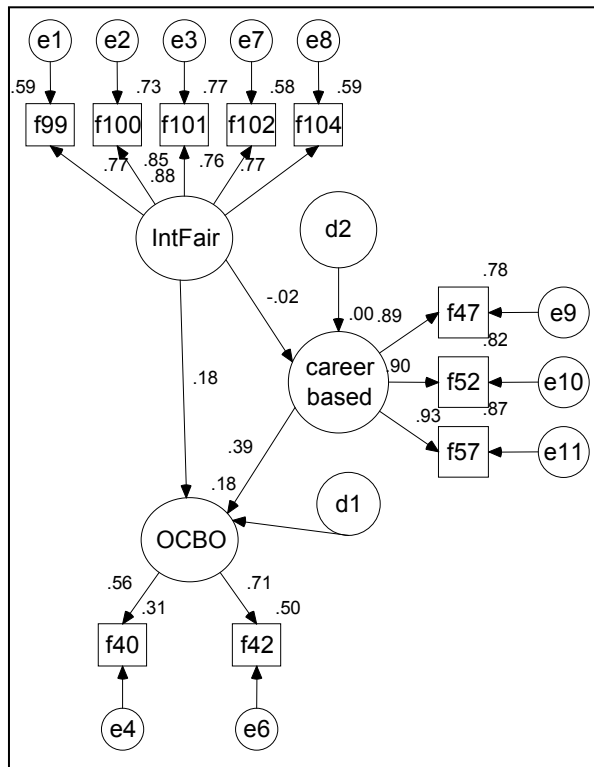
Path coefficients (peer):

	Estimate	S.E.	C.R.	P
avoidance_based <--- IntFair	.029	.066	.436	.663
OCBOp <--- avoidance_based	.067	.030	2.193	.028
OCBOp <--- IntFair	.321	.043	7.542	***

Fit measures: NFI: 0.950 CFI: 0.964 RMSEA: 0.071

Sobel Test Statistic: 0.30 (p = 0.763)

h) Interactive fairness – career based motivation – OCBO



Path coefficients (self):

	Estimate	S.E.	C.R.	P
career_based<--- IntFair	-.025	.068	-.371	.711
OCBO <--- career_based	.165	.028	5.982	***
OCBO <--- IntFair	.102	.035	2.949	.003

Fit measures: NFI: 0.950 CFI: 0.963 RMSEA: 0.076

Sobel Test Statistic: 0.29 (p = 0.769)

Path coefficients (peer):

	Estimate	S.E.	C.R.	P
career_based<--- IntFair	-.025	.068	-.362	.717
OCBOp <--- career_based	.041	.028	1.442	.149
OCBOp <--- IntFair	.325	.043	7.582	***

Fit measures: NFI: 0.956 CFI: 0.968 RMSEA: 0.072

Sobel Test Statistic: 0.29 (p = 0.770)

The results of the mediation models can be summarized in four points. *First*, fit indices for all models range from good to excellent. Thus, the proposed models seem to capture the structures in our sample quit well. *Second*, for OCBI a mediator effect can be shown for internal but not for external motivation. Or more precisely: obligation and fun based motivation fully mediate the relationship between interactive fairness and self rated OCBI. In addition, obligation and fun based motivation partially mediate the relation between interactive fairness and peer rated OCBI. For both self and peer rated OCBI, career based motivation does not mediate the influence of interactive fairness on OCBI. These results are supported by the Sobel test statistics, which affirm a mediating role for internal but not for external motivation.

Third, a similar pattern of results can be found for OCBO. Internal motivation (i.e. obligation based and fun based motivation) fully mediates the relationship between interactive fairness and self rated OCBO. Furthermore, fun based and obligation based motivation partially mediate the relationship between interactive fairness and peer rated OCBO. External motivation (profiling, avoidance and career based motivation) has no mediating role at all. As with OCBI, Sobel test statistics support the notion that internal motivation “carries over” the influence from interactive fairness to OCBO.

Fourth, the mediated models explain a larger part of the variance in the dependent variable than models with a direct path from interactive fairness to OCBI/O. For OCBI, the fully mediated models explain about 34% of the variance of self rated OCBI; whereas a direct path from interactive fairness to OCBI only accounts for less than 1% of the variance in self rated OCBI. In the case of peer rated OCBI, partially mediated models explain 5% and direct path models 1% of the variance in peer rated OCBI. For self rated OCBO the results are similar as with self rated OCBI; i.e. the fully mediated models account for much more variance in OCBI than direct path models. However, partially mediated models (i.e. peer rated OCBO) do not explain more variance in peer rated OCBO than direct path models.

3.4 Discussion

Examining the correlation matrices reveals that self-rated OCBI is related to fun-based, to obligation-based and – to a lesser degree – to career based motivation. Self-rated OCBO also has strong correlations with both types of internal motivation, but in contrast to self-rated OCBI, it is related with all three types of external motivation. Peer-rated OCBI has significant correlations only with fun based and obligation based motivation. And peer-rated OCBO is related to both forms of internal motivation and – weakly – to avoidance based motivation. Hence, the pattern of correlations preliminary supports the notion that for OCBI/O, internal motivation is more important than external motivation. In all cases, interactive fairness is related to OCBI/O and to internal motivation. This finding suggests that internal motivation may mediate the relationship between interactive fairness and OCBI/O. In general, the pattern of correlations between the five forms of motivation corresponds to the ordering of these five forms on the self-determination continuum. I.e. motivational forms that are neighbours on the self-determination continuum have higher correlations than motivational forms that lie on different ends of the continuum. Finally, since external motivation appears to be more relevant for OCBO than for OCBI, their motivational bases differ.

Considering measurement models, reliabilities (measured as Cronbach's alpha) are good to very good, with two exceptions: for OCBO (self-rated) and for OCBI (peer rated), cronbach's alpha is quite low. Dropping one item from each of these two scales slightly improved reliability. Since the scales for OCB are established in the literature and since both exploratory and confirmative factor analyses yield a stable and good fitting two factor solutions, both self-rated OCBO and peer-rated OCBI can reasonably be included in subsequent analyses. Yet, additional research should further investigate the OCB domain to develop more reliable OCB measures.

Exploratory factor analysis of self-rated OCBI and OCBO items reveals a clear two factor solution (with two factors having eigenvalues greater than one) in the case of self-rated OCB. The rotated component matrix (based on principal component analysis with subsequent varimax rotation) shows that OCBI items load highly one component and OCBO items one the other. The component plot in rotated space visualizes item clustering within constructs and adequate distance between constructs. Finally, employing Structural Equation Modelling, confirmatory factor analysis reveals very good model fit for the two factor solution. In addition, the correlation between OCBI and OCBO is 0.5, supporting discriminant validity.

Factor analyses for peer rated OCB differ in two respects from self rated OCB. First, in explorative factor analysis, only one factor has eigenvalue greater one. Second, in confirmative factor analysis, the correlation between OCBI and OCBO is higher than in the case of self-rated OCB.

It follows from these results that OCB (self and peer rated) has a good and stable two factor structure. Furthermore, these two factors can neatly be interpreted as OCBI and OCBO.

When it comes to choosing a rating source, there are points in favour of both self-rated and peer-rated OCB. In favour of using self-rating is the fact that OCB (especially OCBO) often goes unnoticed and nobody but the performing person can report it. In addition, an employee may have different ideas what OCB consists of than his peers. On the other hand, peer measures reduce the danger of common method bias. As a consequence, in order to ensure observability, to account for biases in role concepts and to reduce common method bias, it is appropriate to include both self- and peer measures in the analyses. Another advantage of the joint use of self- and peer rating is the possibility to measure social desirability. In the present sample, there is a significant difference between peer- and self ratings of OCB. While social desirability may inflate self-rated OCB, this seems not to be case for self rated motivation. At any rate, the finding that a significant portion of respondents reveals their external motivations speaks against systematic bias due to social desirability.

Generally, the frequent differences in the empirical part of this study between models based on self- and those based peer ratings can be due to two reasons. First, common method bias can result in an overestimation of correlations between motivation and OCB. Second, people may employ different measures when evaluating coworker behaviour than they do when assessing their own behaviour. Unfortunately, the design of the present study does not allow determining which of these two reasons explains the observed differences.

Considering causal relations between latent variables, the first step consists of analysing models that test the explicative validity of the proposed motivational framework with respect to OCB. In the case of OCBI, it turns out that obligation based and fun based motivation have a strong and career based motivation a moderate influence. All other path coefficients are not significant. While the finding that fun and obligation based motivation matter for OCBI is expected, the influence of career concerns comes as a surprise. It seems that helping behaviours are relevant (or more precisely: they are thought to be relevant) for promoting decisions. This supports Bolino's notion that OCB may be motivated by external career

concerns (Bolino 1999). Analysing the correlations between the constructs reveals high relations between fun-based and obligation-based motivation as well as between profiling-, avoidance and career based motivation, but low correlations between those two motives groups. Hence, profiling based motivation seems to be more on the external side of Self-Determination Theory's motivation continuum and a dichotomy exists between internal on the one and external motivation on the other side.

Results from the structural model representing motives – OCBO linkages show that both fun-based and obligation based motivation exert very strong, avoidance based motivation moderate, and profiling motivation weak (yet negative) influences on OCBO. Hence, the motivational basis of OCBO encompasses a broader range of motives types than OCBI. The finding, that fun-based motivation and avoidance-based motivation influence OCBO, is not expected. In both cases the reason could be found in the specific working context of a pharmaceutical production site. In such a working environment, the strict adherence to rules is necessary, resulting in a selection effect that attracts and retains employees who are comfortable with and derive satisfaction from following instructions. Finally, there is no internal vs. external dichotomy like in the case of OCBI; the pattern of correlations between motive types corresponds to a continuum-like structure.

Relating the results from these structural models to the hypotheses reveals that H1 through H4 are supported, i.e. OCBI/OCBO are motivated by internal and external motives alike; with internal motivation being more important than external motivation. Considering single motives, obligation based motivation is more important than fun based motivation for both OCBI and OCBO. In the case of single external motives, the results for OCBI and OCBO differ. While profiling and avoidance based motivation play an (albeit minor) role for OCBO, career based motivation seems to be relevant for OCBI, but not for OCBO. H5 is not supported. Whereas fun-based motivation matters for OCBO, results for OCBI are mixed. Or more precisely: results from multiple regression analysis indicate a positive influence of fun based-motivation on OCBI, but SEM reveals no significant results for this kind of motivation. An explanation for the positive impact of fun-based motivation on OCBO is provided above: it could be that the work environment of the production site attracts people who like to work in stable, highly structured places. H6 is supported: it turns out that obligation-based motivation is the most important predictor for both OCBI and OCBO. H7 and H8 are not supported. In fact, empirical evidence indicates that both profiling and avoidance based motivation are more important for OCBO than for OCBI. For both types of motivation, the

high-quality working context could again provide an explanation. Quality problems due to inattentiveness can result in harsh reactions from regulative authorities and management alike. Hence, employees have an interest in the smooth functioning of operations and may be willing to punish careless colleagues. H9 is not supported, i.e. empirical evidence indicates that career based motivation is more important for OCBI than for OCBO. This result may be attributed to role perceptions and observability. It may be that managers have a broader role concept which considers OCBO to be in role behaviour. In addition, manager may observe helping behaviour (i.e. OCBI) more easily than OCBO.

In order to check for mediator effect, a series of full structural models linking supervisor's interactive fairness to motivation and OCB/O is tested. Those motives types that have significant path coefficients in one of the models mentioned above are included in these analyses. In the case of self-rated OCBI, a mediator effect can be shown for obligation based motivation, but not for career based motivation. A similar pattern occurs for self-rated OCBO. Internal motivation (both fun-based and obligation based) fully mediates the relationship between supervisor's interactive fairness and OCBI/O. However, for external motivation (i.e. avoidance based motivation), no mediation occurs. Profiling based motivation, which occupies a middle place in the motivation continuum, shows a weakly significant mediation effect. When it comes to peer-rated OCBI/O, results are similar. External motivation does not mediate the relationship between interactive fairness and OCBI/O. Yet, both fun based and obligation based motivation partially mediate this relation.

Thus hypothesis 10 is supported: internal motivation mediates the relationship between supervisor's interactive fairness and OCB (full mediation in the case of self rated OCBI/O and partial mediation for peer rated OCBI/O). This finding is strengthened by several facts. First, a similar pattern of results appears for both OCBI and OCBO and for both self- and peer rated OCB. Second, different motive types lead to similar conclusions. This means the mediator effect is shown for both types of internal motivation, and for two types of external motivation, mediation is absent. Third, the models have very good fit measures. And finally, models with mediation explain a larger part of variance in the criterion variable (i.e. OCBI and OCBO) than models with a direct path from interactive fairness to OCBI/O. As a practical consequence, it follows that managers who practice interactional fairness can induce higher levels of OCB in those employees, who have internal motivations¹⁹¹. With employees having

¹⁹¹ Due to the cross-sectional design, we cannot say whether interactive fairness can also induce autonomous motivation (which would be a form of crowing in):

external motivations, interactional fairness leads not to a change in motivation and the effect of interactional fairness on OCB is small. In this case, other measures may be better suited.

The table below provides an overview of the hypotheses postulated in this this and summerizes results of hypotheses testing.

	Description of hypotheses	Result of hypotheses testing
H1	OCBI is motivated by both internal and external motives	Supported Relevant motives for OCBI: obligation based, fun based, career based (only self-rated)
H2	OCBO is motivated by both internal and external motives	Supported Relevant motives for OCBO: obligation based, fun based, profiling based (only peer rated), avoidance based (only peer rated)
H3	For OCBI, internal motivation is more important than external motivation	Supported
H4	For OCBO, internal motivation is more important than external motivation	Supported
H5	Fun based motivation is more important for OCBI than for OCBO.	Not supported Fun based motivation is important for OCBO; for OCBI, the results are mixed
H6	Obligation based motivation is as important for OCBI as for OCBO.	Supported
H7	Profiling based motivation is more important for OCBI than for OCBO.	Not supported For OCBI, profiling based motivation isn't relevant at all; for OCBO profiling based motivation plays only a minor role
H8	Avoidance based motivation is more important for OCBI than for OCBO	Not supported For OCBI, avoidance based motivation isn't relevant at all; for OCBO avoidance based motivation plays a minor role
H9	Career based motivation is as important for OCBO as for OCBI	Not supported Career based motivation is more important for OCBI than for OCBO

H10	Motives mediate the relationship between interpersonal fairness and OCBI/O in the sense that higher levels of perceived interpersonal fairness lead to higher levels of internal motivation, which in turn results in higher levels of both OCBI and OCBO	Supported
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Table 23: Results of Hypotheses Testing

3.5. Limitations

Of course, the present study does not come without limitations. In this section, we discuss issues concerning direction of causality, common method and self-serving biases, generalization of results and cross level effects.

First, according to the research design, all constructs are measured at the same point in time. This cross-sectional design makes it difficult to determine the direction of causality. For example, while it seems plausible that fun-based motivation causes helping behaviour, it could also be the other way round. A new employee who has hardly ever helped before may discover the joy of helping because group norms emphasize helping behaviour. Hence, although we can underlie the proposed causal logic by referring to existing empirical evidence and theoretical reasoning, we cannot rule out the possibility of reverse causality.

Second, with the exception of OCI and OCBO, all constructs are measured using self rating. While this sort of measurement is indicated due to pragmatic (it is difficult to measure motivation otherwise) and conceptual (as a motivating force, it is more important what an employee believes than what really is) reasons, it opens the door to common method and self serving biases. As a consequence, correlations between constructs may be lower in reality, resulting in biased estimations of path coefficients and model fit indices.

Third, since all the data were gathered in one single firm, the generalizability of the results is limited. At best, the results of this study provide preliminary support for the proposed hypotheses. To enhance external validity, it is necessary to test the model assumption in other contexts.

Fourth, besides OCBI and OCBO, the questionnaire measures all the constructs at an individual level. However, organizations are characterized by a nested structure involving individuals, teams and divisions. It is quite possible that the characteristics of teams or divisions vary significantly. Accordingly, regression coefficients may depend to a large degree on higher-level characteristics. Because confidentiality issues only permit the aggregation of data at divisional, not at team, level, we have insufficient data to perform a full-scale multilevel analysis. Thus, coefficients may be biased due to neglected team characteristics.

Finally, employing one single data-gathering technique (i.e. questionnaire) may also lead to distorted results. For instance, it is possible that even peer rating of OCB does not adequately capture effective behaviour, or that people systematically err when evaluating their motives.

4. Concluding remarks

4.1 Contribution to OCB research

Having proposed and tested a motivational framework based on motives, this section summarizes contributions of this thesis to OCB research. While some of these contributions result from the discussion of the state of the art and the development of the motivational framework in chapter 2, others are related to empirical analyses in chapter 3. All in all, this thesis makes ten contributions to OCB research:

- 1) We propose a new definition of OCB which is influenced by Organ, but drops the requirement that OCB is not recognized by the formal reward system. Hence, we maintain that OCB is discretionary behaviour and that it contributes – aggregated and over some time – to the effective functioning of the organization. On the one hand, this definition is more precise than the definitions for contextual performance and extra-role behaviour. On the other hand it considers the empirically well established fact, that supervisors take OCB into account when evaluating their employees¹⁹².
- 2) This thesis argues that OCB as observable behaviour should be strictly separated from motivation as a latent construct. While this notion may be quite obvious to some outsiders, it is not taken for granted in OCB research. For example, OCB research in the tradition of contextual performance suggests that OCB is always internally motivated¹⁹³. Yet, as this thesis shows, OCB is motivated by a multitude of different motives.
- 3) We develop a framework for the comparison of OCB, contextual performance and extra role behaviour which allows distinguishing these conceptualizations according to internal and external motivation. This comparison reveals that all three conceptualizations place emphasis on internal motivation but that they refer to different theoretical explanations. Thus we add a new perspective to existing comparative OCB literature (e.g. Van Dyne et al. 1994, Coleman & Bormann 2000).
- 4) Focusing on the motivational basis of OCB, we critically analyse existing meta-analytic evidence for antecedents of OCB. This analysis shows that most empirical research on OCB

¹⁹² For a thorough discussion of our definition of OCB, see chapter 2.1.1.4.

¹⁹³ As exposed in chapter 2.1.1.2, the term OCB is nowadays used for both research in the tradition of Organ's original definition and in the tradition of contextual performance.

investigates the influence of attitudes and dispositions on OCB. Yet, there aren't many studies dealing explicitly with motives and motivational processes. Hence, by analysing meta-analytic evidence, we are able to show a gap in the literature on OCB.

5) The present thesis jointly discusses theoretical explanations and empirical evidence for organizational consequences of OCB. Up to now, comparative literature on the consequences of OCB was restricted to empirical results (e.g. Podsakoff et al. 2000). Taken together, theory and empirical evidence make a strong argument that OCB indeed fosters organizational effectiveness. In addition, we highlight an aspect of the positive consequences of OCB which is hardly ever clearly articulated: that OCB's positive impact on organizational effectiveness gives a rationale for OCB being externally motivated¹⁹⁴.

6) For the first time, we present a systematic account of the narrow view of the motivational basis of OCB. Categorizing this literature according to their theoretical background results in four distinctive strands of literature (theories of social exchange, impression management, functional motives, and social dilemma). Especially, we put forth the idea that the literature on the influence of OCB on supervisor's evaluations and the literature on impression management together form an argument for externally motivated OCB. .

7) Informed by self-determination and functional motive theory, we propose a motive based framework which has at its core the self-determination continuum. On the one hand, according to their prevailing motives, social exchange, impression management, social dilemma and functional motives theories can be located on this continuum. On the other hand, insights from social exchange theory, impression management, functional motives theory and the self-determination continuum result in five motivational types (fun based motivation, obligation based motivation as internal motivation, avoidance based motivation, peer based motivation, career based motivation as external motivation). Since the proposed motivational framework is based on theory, comprehensive, testable and provides a clear structuring of motives, it extends research in the tradition of the functional motive approach (e.g. Rioux & Penner 2001).

¹⁹⁴ As argued in chapter 2.1.3, the fact that OCB has positive consequences on organizational effectiveness makes it reasonable for managers to include OCB in their performance evaluations. Consequently, employees have an incentive to engage in OCB if they want to impress their supervisors (career based motivation as a form of external motivation).

8) In the empirical part of this thesis, we show that OCB is motivated by both internal and external motivation; with internal motivation having a greater impact than external motivation. This finding supports research by Bolino (1999) and Penner (1997) who propose that in order to really understand the motivational basis of OCB, external motivation has to be taken into account. However, research in this thesis extends the work of Bolino and Penner because it tests a comprehensive motive based model which is based on theory and allows designating the relative importance of internal and external motivation.

9) In addition to making general statements concerning the relative importance of internal and external motivation, empirical testing of the motivational framework reveals which motive types exert the greatest influence on OCB. Obligation based motivation seems to be more important than fun based motivation. Both these motives have a greater impact than career based motivation, which has a (slightly) greater influence than avoidance and profiling based motivation.

10) Empirical results support the ordering of the proposed motives on the self-determination continuum. In general, the closer the motives are located on the self-determination continuum, the higher their correlations are. Hence, we offer the OCB research community a motivational framework which is not only grounded in established theories but also empirically tested.

11) Our results reveal that OCBI and OCBO differ in their motivational bases. For example, career based motivation only plays a role for OCBI (but not for OCBO), whereas profiling and avoidance based motivation have an impact on OCBO (but not on OCBI). These findings contribute to the ongoing debate whether OCB should be modelled as first or as second order construct. In this debate, it sets a counterbalance to research by LePine et al. (2002), who argue that the high correlations between OCB and its sub-constructs supersede the use of first order constructs like OCBI and OCBO.

12) By employing both self- and peer ratings we contribute to the debate on the appropriate rating source. While most research on OCB has used supervisor-ratings, the proposed combination of self- and peer ratings offers distinctive advantages. It allows dealing with divergent role conceptions, while at the same time reducing common method bias. Moreover, the size of social desirability can be estimated.

13) In empirical OCB research, the preferred statistical techniques are either multiple regression analysis or structural equation modelling. Testing hypotheses with both these techniques allows drawing on the relative strengths of each technique, enhances predicative validity and provides a more nuanced picture of the motivational forces underlying OCB. For example, fun based motivation has significant impact on OCBO when analysed with multiple regression and with structural equation modelling (both self- and peer rating). Hence, our analytical framework not only takes into account biases due to common method errors, different role conceptions and social desirability, but also biases which can result from using different analytical techniques.

14) This thesis shows an interaction effect between attitudes (i.e. interpersonal fairness), motives and OCB; i.e. more interpersonal fairness leads to higher levels of internal motivation which in turn fosters OCB. Hence, it integrates research focusing on the linkages between attitudes and OCB with a motive based view. Furthermore, it shows that motive based view contributes – in addition to attributes and dispositions - to the understanding of the motivational basis of OCB.

4.2 Managerial implications

By definition, OCB are behaviours that enhance the efficient and effective functioning of the organization. This claim is supported by empirical evidence discussed in chapter 2.1.3. In addition, the same chapter critically evaluates the conceptual and theoretical reasons explaining the positive relationship between OCB and organizational performance. Thus, from a practical point of view, HR professionals and line managers are well advised to foster OCB. But how can they achieve this goal? Based on the discussion of the motivational basis of OCB in this thesis, this section discusses some managerial implications.

The presentation of these managerial implications is roughly in accordance with the structure of this thesis. First, implications from research dealing with the relationships between attitudes and OCB are presented (lit a). The second article focuses on dispositions and their influence on OCB (lit b). In the third article, the relevance of a motive based view is discussed (lit c). The practical insights from studying interaction effects between attitudes and motives are put forth in the next article (lit d). The fifth article is concerned with managerial implications from research on discriminating OCB from in-role performance (lit e). Having discussed these basic issues allows us to deal with specific HR systems. We focus on performance management (lit f) and pay for performance (lit g), because these systems are widely used in today's business environment. Finally, the last section highlights a neglected topic: the dark side of OCB. As indicated in some parts of this thesis, OCB can have negative consequences requiring specific managerial intervention (lit h).

a) Managing attitudes

A lot of empirical research has been conducted to analyse the linkage between attitudes and OCB. An overview of results can be found in the chapter discussing meta-analytical results for antecedents (c.f. chapter 2.1.2). As shown in this chapter, for some antecedents a positive impact on OCB is empirically well established. For example, transformational leadership and procedural fairness are positively related with OCB in many studies. Analysing this meta-analytic evidence reveals that when it comes to designing managerial interventions aimed at fostering OCB through "attitude management", a multitude of potential influence channels exist. From a managerial point of view, the most important are:

- a) Managerial behaviour (e.g. transformational leadership)
- b) Workplace and organizational design (e.g intrinsically satisfying tasks)
- c) Organizational climate and norms (e.g. group cohesiveness)

- d) HR systems like recruiting and selection, performance management, compensation and benefits (e.g. procedural and interpersonal fairness)

Thus, managers are advised to create and maintain a work environment which is likely to be perceived as favourable (e.g. providing leadership training to foster transformational leadership or designing incentive systems that are likely to be perceived as transparent and fair).

b) Managing dispositions

Research discussed in chapter 2.1.1.2 shows that dispositions (personality traits) can have an influence on OCB. Although the effect sizes tend to be smaller than those of attitudes, they nevertheless are often significant. For example, conscientiousness as a personal trait has been shown to have a positive impact on OCB. Since dispositions are patterns of behaviour, cognition and emotion which are stable over time and situations, the only way to influence dispositions is to attract and select employee who are characterized by high levels of relevant personal traits.

Thus managers should make sure that screening and selection procedures take into account dispositions that tend to be related to OCB (like conscientiousness).

c) Managing motives

Both this thesis and studies in the tradition of Penner's functional motives approach theoretically explain and empirically show that a mixture of different motives plays an important role in driving OCB. Thus from a managerial perspective, addressing different kinds of motives is likely to be important. For instance, for an employee who is internally motivated to help (and helping is OCB in this context), it may suffice to provide opportunities to do so. In contrast, an employee who is status-driven only engages in helping if she knows that going the extra mile is appreciated.

It is important to note that different motives do not enhance OCB equally. As this thesis shows, internal motives tend to be more important than external motives. In addition, results from chapter 3 also reveal that different forms of OCB (like OCBI and OCBO) are likely to have different underlying motives.

For additional research dealing with the effectiveness of incentives and persuasion from a motive-theoretical view, see also Clary et al. (Clary et al., 1994).

As a consequence, managers should be aware of the different motives underlying OCB and offer possibilities for employees to fulfil these motives (e.g. connecting people, so that they can show helping).

d) Managing interaction Effects

As this thesis shows, evidence is increasing that interaction effects involving motives and situational factors are relevant if managers want to enhance OCB. For instance, motives may moderate the relation between attitudinal antecedents and OCB, elucidating the circumstances under which situational factors have an influence on OCB. Or they can function as mediators, explaining why situational factors exert influence on OCB. As an example, hypotheses 10 in chapter 2.3.3 states that internal motivation mediates the relationship between supervisor's interpersonal fairness and OCB. Since the corresponding structural model provides a good fit with the data, this hypothesis is supported. Hence, interpersonal fairness has a positive influence on internal motivation which in turn enhances OCB.

In any case, managers should note that they cannot treat "attitude management" independently of "motive management".

Although, due to its cross-sectional design, this study has not investigated dynamic effects, the issue is of great relevance, because there is evidence that motivation can shift from internal to external (and vice versa). These crowding effects have caught the attention of psychologists and economists alike (Frey & Benz, 2002). For OCB, Weibel et al. show in a quasi-experiment that contextual factors can reduce the internal motivation to perform OCB (Weibel A., K., & M., 2008 (forthcoming)).

As a consequence, managers should be aware that situational factors not only interact in favourable ways with motives, but that they can also lead to crowding effects.

e) Managing job borders

An important caveat follows from the discussion of roles and task boundaries in chapter 3.1.3.1. Conceptions of roles and, consequently, of what is considered to be discretionary behaviours vary not only between nations and sectors, but even within a single firm, where

managers and employees can have different ideas about which behaviours are OCB and which are not (Morrison 1994).

Thus, managers are advised to check if employees have the same conceptions of OCB, because OCB and In Role Behaviour have different antecedents and have to be motivated using different interventions.

f) Designing pay for performance systems

Considering the prevalence of individual merit pay in practice and the positive effects of OCB, it is tempting to explicitly reward OCB. This way, managers could influence OCB in a precise and effective way.

However, this solution will probably not work for several reasons. Firstly, many instances of OCB go unnoticed, weakening the reward contingency and resulting in employees performing those OCBs that are most likely to be noticed (Organ 2006). Secondly, providing monetary rewards appeals only to a small category of external motives. As we have shown in chapter 3, internal motives are much more important in fostering OCB than external motives. Thirdly, if employees perceive the reward system to be controlling, crowding out of internal motivation is likely to occur. Fourthly, integrating OCB into the formal reward system may induce employee to adapt their role boundaries. As a consequence, the behaviour is seen rather as in Role Behaviour than as OCB. It is important to note that this is not a priori negative. However, it is likely that employees will henceforth perform this kind of behaviour only if they get paid. Therefore, managers should think carefully whether the behaviour is, literally, worth this price.

One final word about pay-for-performance is related to the most common application of pay-for-performance, i.e. that pay is contingent only on in-role performance. In this case, research has shown that OCB is likely to decline (Deckop, Mangel & Cirka 1999, Deckop, Merriman & Blau 2004).

Consequently, we advise managers not to use pay-for-performance to foster OCB.

g) Designing performance management systems

When it comes to performance management, it makes sense to distinguish between a “narrow view”, which includes performance appraisal and a “broad view”, which encompasses the steering of human performance in organizations.

Concerning performance appraisal, research discussed in chapter 2.3 reveals that managers take OCB into account when evaluating their employees. Since it is impracticable to forbid managers to include OCB in their performance appraisals, a forward strategy seems more viable.

Thus, managers can inform employees how much weight they place on OCB when evaluating their employees. Otherwise, there is a danger that employees perceive the performance evaluation process as intransparent and unfair.

Turning our attention to the broad view, managers should be aware that human work performance has two sides: task performance and OCB. Therefore, to be comprehensive, a performance management system should be concerned with both kinds of performance. Designing and implementing such a system is not an easy task, because it has to deal with trade-offs between both kinds of behaviours and because In Role Behaviour and OCB have different motivational bases¹⁹⁵.

Hence, a comprehensive performance management system should encompass in-role behaviour and OCB alike. In designing such a system, special emphasis should be placed on the fact that in-role behaviour and OCB are driven by different motivational processes and that they differ with respect to predictability and enforceability.

h) Managing the dark side of OCB

Most papers on OCB see the construct in a favourable light and close by recommending managerial intervention to advance it. Since OCB is by definition behaviour enhancing the effective functioning of the organization, this advice seems to be reasonable. However, we argue that OCB can come with costs. Specifically, five potential drawbacks should be taken into account.

Firstly, engagement in OCB may distract employees from task performance. In economic terms, this constitutes a multi-tasking problem, because both OCB and In Role Behaviour are relevant for a firm's success and a limited amount of time has to be allocated between these two activities. Besides having insufficient time to perform OCB and In Role Behaviour at high levels, employees may neglect In Role Behaviour and engage in OCB, because they do not succeed in fulfilling their formal job requirements (compensatory OCB) or because they

¹⁹⁵ We do not discuss the motivational basis of IRB in this thesis. Yet formal prescriptions, tangible rewards, and sanctions play a much greater role for IRB than for OCB.

see OCB as an effective way to impress their supervisors (c.f. chapter 2.3.1). In a similar vein, Hunt argues that performing OCB is especially harmful if the organization is characterized by Taylorist jobs (Hunt, 2002).

Hence, managers should be aware that high workload and tight schedules may deter employees from performing OCB. In addition, they should develop awareness for the possibility of compensatory and impression management based OCB.

Secondly, while having positive consequences for the organization, OCB may have negative personal effects for the employee performing it. For example, in a recent paper, Bolino and Turnley empirically show that engaging in OCB is associated with higher levels of employee role overload, job stress and work-family conflict (Bolino & Turnley, 2005). Thus, aside from having positive individual consequences such as enjoying the act of performing OCB per se or the rewards it may entail, OCB is costly to the employee. Moreover, this finding substantiates the interpretation of OCB as being a social delayed fence put forth in chapter 2.3.1 (Joireman, Daniels et al., 2006). The costs these authors are referring to in an abstract way could reasonably be increased levels of job stress and family conflict¹⁹⁶.

Thus, managers should be aware that job stress and the reluctance to engage in OCB could result from the personal costs associated with OCB. Possibly, managers should intervene to reduce the costs of OCB (e.g. by reducing in-role tasks, work on group climate and norms).

Thirdly, employees may perform OCB that does not really contribute to value creation. Of course, in a strict sense, this kind of behaviour is not OCB, because it does not add to the firm's success. However, in practice, this may be a real problem. Consider for example a sales manager who realizes that one of his sales agents is helping his new coworker by explaining the official sales strategy to him. The sales manager, having recently read a PhD thesis about OCB, encourages the agent to continue with this behaviour in the future¹⁹⁷. But having an internal training program which includes sessions about the official sales strategy in place, the organization would be better off if the sales agent concentrated on sales efforts.

As a consequence, in order to determine which OCB behaviour is desirable in a specific situation, managers should evaluate the potential effects of extra-role behaviour on the organization's success.

¹⁹⁶ Whereas Daniels et al. only consider the costs of OCB, a more realistic view would also include benefits. In this case, OCB would be a social delayed case only if the employee considers the costs of performing OCB higher than the benefits.

¹⁹⁷ The problem here is that the manager thinks helping has positive effects for the organization in any case.

Fourthly, OCB research generally assumes that employees have the necessary abilities to perform all kind of OCB behaviours. For management, the only problem seems that they are not always motivated to do so. However, it may well be that some of these abilities are absent. If employees who do not have the necessary abilities engage in OCB nonetheless, it may entail costs. Consider, for example, a worker in a chemical production site who is helping his colleague by explaining some complicated security procedures to him. Having wrongly memorized these procedures, this act of helping can have disastrous consequences. Of course, we could again argue that this behavioural pattern is not really OCB. But it may be a realistic scenario in an organizational setting like the one described in the empirical part of this thesis.

Thus, managers should make sure that selection decisions take into account abilities to engage in OCB, and that employees may get behavioural training if they lack relevant OCB related abilities.

Finally, OCB which is motivated by external motives may entail some specific negative consequences. It is probably less effective, because it is only performed in front of others and may be executed half-heartedly (Bolino 1999). In addition, employees who attribute external motives to their coworkers' OCB are likely to show negative reactions towards these employees (Van Dyne & LePine, 2001). As we have seen in chapter 3.3., external motivation plays a role for OCBI and OCBO alike.

Hence, managers should be aware that externally motivated OCB does not only occur more rarely and has a lower intensity than internally motivated OCB; it may in addition entail negative reactions from co-workers.

Synopsis practical implications

Generally, managers should focus on both selection and attitude management, consider a mixture of underlying motives, interactions between contextual factors and motives as well as the prospect that motives can shift from internal to external (and vice versa). In addition, they should be aware that managers and employees can differ in their views on the specific behavioural content of OCB.

As for HR systems, managers are advised to refrain from using individual merit pay to foster OCB. The role and relative weight of OCB in performance appraisals is best made transparent to ensure fairness. A comprehensive performance management should include both task performance and OCB while considering that both have different motivational bases. According to research on its motivational basis, OCB is most likely to be advanced when managers establish an environment which is perceived as favourable, provide different opportunities which appeal to different motives and reduce the costs associated with engaging in OCB.

Finally, while OCB is by definition positive for the organization, it may entail negative consequences. Engaging in OCB can distract from task performance, may entail negative individual consequences, can focus on behaviour that adds no value, may be performed by employees lacking the necessary abilities, and can be driven by external motives. Yet, Managers should undertake specific action to prevent these negative consequences from occurring.

4.3. Suggestions for future research

Even though the present thesis offers some insights into the motivational basis of OCB, and many others have investigated the subject in greater detail, many questions remain open. Therefore, this section puts forth some suggestions that might offer material for future scientific studies.

Replication in other contexts

The sample of the present study consists of one firm's personnel. To validate results and to make informed statements regarding generalization, replication in different contexts is necessary. For example, models based on the proposed motivational framework could be tested in different sectors (e.g. the service industry), in different functional areas (e.g. R & D) or in different cultural contexts (e.g. Asia).

Theoretical clarifications

Of course, there are other models of motivation that could be useful in shedding light on the motivational basis of OCB. For example, the framing of OCB as social dilemma opens the door for the application of insights from psychological economics to our research question. The vast experimental literature on prosocial preferences may help to explain why people nonetheless engage in OCB. Specifically, measures of OCB could be included in behavioural economic experiments. Alternatively, insights from social identity theory can be employed to investigate social identities as an additional approach to overcoming social dilemma situations. Since social identities are best measured using questionnaires, it would be quite easy to include Social Identity Theory in both field and laboratory studies.

At last, the stability of motives needs further investigation. If motives are stable over some time (i.e. preferences are fixed), different HR policies have to be applied (e.g. focus on selection) than in the case of variable motives (e.g. focus on leadership style and incentives).

More complex models

This study investigates the relationship between attitudes, motives and behaviour (i.e. OCB). However, a lot of different antecedents are likely to influence OCB. Among those are personal traits, roles, incentives, emotions, norms, and structures (i.e. job design.). While it is not our goal to contribute to model proliferation, we think two reasons justify the development of more complex models. Firstly, a common feature of empirical studies in the realm of OCB is that they explain only a rather small amount of variance in the criterion

variable. Hence, including different types of antecedents could provide better explanations of why OCB occurs. Secondly, research on attitudes shows that, outside the laboratory, it is usually quite difficult to change established attitudes, and the link between general attitudes and specific behaviours is rather weak (Eagly & Chaiken, 1993). Thus, models that include variables other than attitudes not only contribute to better predictions of OCB; they may also indicate factors that can be influenced much more easily than attitudes¹⁹⁸.

Consequences of OCB

Although the consequences of OCB are not the focus of this thesis, we recommend additional research on this topic. As the literature review in chapter 2.1.3. reveals, there has been surprisingly little research on the consequences of OCB. In particular, due to the cross-sectional nature of most of these studies, we do not know much about the direction of causality. For instance, it could be that a team's success induces higher levels of OCB. Hence, some variables that have been used to measure consequences could also be antecedents. In addition, little is known concerning the processes through which OCB influences organizational performance. As an example, following line of reasoning proposed by Bolino et al., we could design a study that measures OCB, social network characteristics, core competencies and market success (Bolino et al., 2002).

Multilevel models

Individual behaviour in organizations takes place in a nested social structure. In the sample of this thesis, production site workers are members of teams which are part of the production division. In this context, individual behaviour like OCB is likely to be influenced by team characteristics (e.g. group norms). To take these influences into account, future studies could gather data from structural levels other than the individual. For example, we could hypothesize that, in addition to motives, group norms influence both OCBI and OCBO. To model this hypothesis, the path coefficient measuring the effect size of motives ought to be a linear function of group norms. This corresponds to the model structure assumed in standard multi-level analysis.

¹⁹⁸ From a practical point of view, one drawback of many studies is that they recommend some sort of "attitude management" to managers. However, what managers can actually do to change attitudes and what alternatives might exist is left unexplained.

Different types of data

This thesis uses questionnaires to measure the constructs we are interested in. Even though we employed peer and self rating for the OCB construct, we still rely on paper and pencil evaluations provided by those people who are the subject of study. Hence, to reduce method bias, other types of data could be gathered. For example, we could measure OCB by independent observers or motivation by psychological measures. Employing multi-method, multi-trait analysis¹⁹⁹, the method effect can be quantified and parameter estimates can be adapted accordingly.

Longitudinal design

One basic problem with cross-sectional correlation studies is the difficulty of determining the direction of causality. For instance, while obligation-based motivation may cause an employee to engage in OCBO, it may also be the other way round, i.e. that performing OCBO in a context that values this kind of behaviour may enhance obligation-based motivation. In order to argue for a specific direction of causality, we refer to theory and existing empirical evidence. However, it would lend additional support to our arguments if we were to produce evidence directly supporting the causal hypothesis. One possibility for capturing causality more precisely is the use of longitudinal study design. Ideally, we would measure attitudes, motivation, and OCB at two different times. This kind of design not only allows the calculation of cross-lag correlations and, as a consequence, statements about the direction of causality; it also makes it possible to determine auto-correlations, which would result in more appropriate estimations of effect sizes.

Experiments

Conducting experiments is another way of determining the direction of causality. In addition, experiments have the advantage of singling out “noise” and of focussing on specific linkages between variables of interest. Hence, experiments could help clarify the relationships between attitudes, motives and OCB. Such experimental studies could be designed in the tradition of Wright, who studied the influence of fairness perceptions on OCB in the laboratory (Wright, 1996) (See (Penner et al., 1997)).

In order to apply some virtues of the experimental method to studies in the field, future research could employ field experiment methods. For example, Skarlicki and Latham conducted a quasi field experiment to study the effect of supervisors’ interpersonal fairness on

¹⁹⁹ These multi-method, multi-trait analyses can be performed in the SEM framework by adding a latent measurement variable to the structural model.

the OCB of their employees. The experimental design consisted of some supervisors who received fairness training and a control group that received no training (Skarlicki & Latham, 1996). Such a design could provide a model for field studies investigating the motivational basis of OCB.

Dynamic Modelling

Cross-sectional correlation studies can be compared to a picture; they record the linkages between constructs at a specific point in time. However, for the topic of this thesis, it would add valuable insight if we could investigate change processes. Indeed, both motivation and OCB may vary over time. For example, fun-based motivation may initiate helping in the first place. Performing helping – and the positive feelings it entails – may enhance fun-based motivation in the second place. Or the introduction of a tight pay-for-performance scheme may reduce internal motivation and foster external motivation to perform OCB²⁰⁰.

Among others, two statistical methods seem appropriate for capturing these change processes. Firstly, growth trajectories for latent constructs such as motivation and OCB can be estimated with latent growth models²⁰¹. These models are extensions of the structural equation framework and model the intercept and slope of the growth trajectories as latent variables. Other latent constructs (i.e. fairness or control) may be added to the model to capture the influence of these exogenous constructs on the growth parameters.

Secondly, analytic models of the change process can be constructed using stochastic differential equations²⁰². In this framework, the trajectory is supposed to be influenced by some random process, resulting in a rugged sample path. A model of such a stochastic process consists of a deterministic part (i.e. an ordinary differential equation) and a stochastic part capturing the white noise.

²⁰⁰ Empirical evidence for this statement would lend support to the existence of motivational crowding-out in the case of OCB.

²⁰¹ One drawback of latent growth models is that they require measurements at three different times (with more measurements leading to more accurate estimations of the growth parameters)

²⁰² As an advantage, stochastic differential equations allow for a more flexible modelling of the growth rate than latent growth models, which are usually restricted to linear functional relationships.

4.4 Conclusion

In order to avoid conceptual confusion this thesis argues that OCB as observable behaviour and motivation as latent construct should be modelled separated. Considering empirical evidence showing that OCB can be motivated both internally and externally, our proposal for an adopted version of Organ's original definition drops the requirement that OCB is not rewarded. In view of the different theoretical explanations for the motivational basis of OCB, the proposed motive-based framework, which is rooted in functional motive theory and self-determination theory, allows integrating and systematizing insights from social exchange, impression management, functional motives and social dilemma theory. Scrutinizing this framework with empirical data reveals that internal motivation (fun-based and obligation based motivation) exerts a greater influence on OCB than external motivation (career based, avoidance based and profiling based motivation). The significant interactions between motives and situational factors lead to the conclusion that a comprehensive understanding of the motivational basis of OCB involves both attitudes and motives. Finally, the different empirical results for OCBI and OCBO underscore the necessity to model OCB as a second order construct.

Considering the importance of OCB for the functioning of today's organizations, the quest for the motivational basis of OCB is likely – and hopefully – to be continued.

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Appendices – Overview

- Questionnaire (original German version)
- Origin of items
- About the author



Universität Zürich

Universität Zürich, Oktober 2004

Geschätzte Mitarbeiterinnen und Mitarbeiter der Roche

Sie haben soeben einen Fragebogen erhalten. Wir möchten Sie bitten, diesen offen und vollständig zu beantworten. Doch zuerst möchten wir uns kurz vorstellen und Ihnen erläutern, was Inhalt und Ziel dieser Befragung sind.

Wer sind wir?

Wir sind wissenschaftliche Mitarbeiter des Instituts für Organisation und Unternehmenstheorien der Universität Zürich. Unsere Forschungsschwerpunkte kreisen seit einigen Jahren um die Themen Mitarbeitermotivation und Arbeitszufriedenheit.

Was wollen wir mit der Befragung?

Unser Ziel ist es, durch die Befragung ein besseres Verständnis über die Einflussfaktoren der Mitarbeitermotivation zu gewinnen. Wir wollen verstehen, wie Unternehmen den Arbeitsplatz und das Arbeitsumfeld gestalten können, um die Zufriedenheit und die Leistung ihrer Mitarbeiter zu fördern.

Was hat die Roche von der Befragung?

Die Befragung ist eine Standortbestimmung für die Roche. Das Unternehmen lernt, welche Schwachstellen bestehen und wo man bereits ein attraktiver Arbeitgeber ist.

Was passiert mit Ihren Daten?

Die Befragung erfolgt ausschliesslich durch uns. Die ausgefüllten Fragebogen werden von uns ausgewertet und nach der Verarbeitung vernichtet. Am Ende der Befragung bitten wir Sie darum einen persönlichen Code einzugeben. Dieser Code dient bei einer erneuten Befragung dazu, dass wir die Ergebnisse vergleichen können und gleichzeitig Ihre Anonymität wahren können. Ihre Daten unterliegen der Datenschutzverordnung der Universität Zürich. Ihre Anonymität ist garantiert. Das Unternehmen Roche wird nicht erfahren, wer was ausgefüllt hat. Die Roche wird von uns ausschliesslich über anonyme, zusammengefasste Ergebnisse der Studie informiert.

Warum ist Ihre Mitarbeit wichtig?

Das Ausfüllen des Fragebogens beruht auf freiwilliger Basis. Um aussagekräftige Ergebnisse zu erhalten, sind wir allerdings auf die Mitarbeit möglichst aller Angestellten angewiesen. Je mehr mitmachen und je zutreffender und ehrlicher die Antworten ausfallen, desto besser – sowohl für das wissenschaftliche Projekt, als auch für die Standortbestimmung von Roche. Das Ausfüllen des Fragebogens wird ca. 30 Minuten dauern. Wir danken Ihnen bereits jetzt vielmals für Ihre Mitarbeit.

Projektleiterin: Dr. Antoinette Weibel

Projektteam: Daniel Bastian, Tina Graf, Regula Lehmann

Fragen zu Ihren Arbeitsbedingungen

Die folgenden Fragen beziehen sich auf **das Arbeitsumfeld** bei Roche.

	Trifft voll und ganz zu	Trifft eher zu	Weder noch	Trifft eher nicht zu	Trifft überhaupt nicht zu
<i>F1 Bei Roche wird gute Arbeit anerkannt.</i>	0	0	0	0	0
<i>F2 Meine Möglichkeiten zu einer beruflichen Weiterbildung sind fair.</i>	0	0	0	0	0
<i>F3 Die Bewertung meiner Leistung ist fair.</i>	0	0	0	0	0
<i>F4 Bevor man in der Roche etwas ändert, sammelt man ausreichend Informationen.</i>	0	0	0	0	0
<i>F5 Die Zusatzleistungen, die ich von Roche erhalte, sind fair.</i>	0	0	0	0	0
<i>F6 Mein Lohn ist fair.</i>	0	0	0	0	0
<i>F7 Bei Änderung der Arbeitsbedingungen können die Betroffenen ihre Meinung sagen.</i>	0	0	0	0	0

Die folgenden Fragen betreffen **die Beförderungen** bei Roche:

Einmal pro Jahr werden in der Roche Beförderungen ausgesprochen, zum Beispiel zum Prokurist oder zum stv. Vorarbeiter. Was **halten Sie ganz allgemein** von diesem Beförderungssystem:

	In sehr hohem Ausmass	In ziemlich hohem Ausmass	In mittlerem Ausmass	In geringem Ausmass	Über- haupt nicht
<i>F8 In welchem Ausmass können Mitarbeiter im laufenden Beförderungsverfahren ihre Meinung sagen?</i>	0	0	0	0	0
<i>F9 In welchem Ausmass haben Mitarbeiter Einfluss darauf, ob Sie befördert werden oder nicht?</i>	0	0	0	0	0
<i>F10 In welchem Ausmass gelten bei Beförderungen für alle Mitarbeiter die gleichen Regeln?</i>	0	0	0	0	0
<i>F11 In welchem Ausmass erfolgen Beförderungen ohne Vorurteile?</i>	0	0	0	0	0
<i>F12 In welchem Ausmass basieren Beförderungen auf sorgfältig erhobenen Informationen?</i>	0	0	0	0	0

Die folgenden Fragen beziehen sich auf Ihre heutige Beförderungsstufe (bspw. Cheflaborant, Vorarbeiter). Ganz generell, wenn Sie **Ihre heutige Beförderungsstufe** betrachten:

	In sehr hohem Ausmass	In ziemlich hohem Ausmass	In mittlerem Ausmass	In geringem Ausmass	Überhaupt nicht
<i>F13 In welchem Ausmass entspricht Ihre heutige Beförderungsstufe Ihrer Anstrengung (Einsatz) am Arbeitsplatz?</i>	0	0	0	0	0
<i>F14 In welchem Ausmass entspricht Ihre heutige Beförderungsstufe Ihren gesammelten Erfahrungen?</i>	0	0	0	0	0
<i>F15 In welchem Ausmass entspricht Ihre heutige Beförderungsstufe Ihren Leistungen (Ergebnis) am Arbeitsplatz?</i>	0	0	0	0	0

Die folgenden Fragen betreffen **das Mitarbeitergespräch** bei Roche:

Um diese Fragen zu beantworten, denken Sie bitte zurück an **Ihr letztes Mitarbeitergespräch**. Wenn Sie erst kurze Zeit bei Roche arbeiten und daher noch kein Mitarbeitergespräch erlebt haben, bitten wir Sie, diese Fragen auszulassen und auf Seite 5 weiterzumachen.

Die folgenden Fragen beziehen sich darauf, nach welchen „Spielregeln“ bei Roche das alljährliche Mitarbeitergespräch durchgeführt wird. Wir möchten erfahren, wie Sie den **Ablauf des Mitarbeitergesprächs** beurteilen:

	In sehr hohem Ausmass	In ziemlich hohem Ausmass	In mittlerem Ausmass	In geringem Ausmass	Überhaupt nicht
<i>F16 In welchem Ausmass können Mitarbeiter während des Mitarbeitergesprächs ihre Meinung sagen?</i>	0	0	0	0	0
<i>F17 In welchem Ausmass haben die Mitarbeiter Einfluss darauf, was schlussendlich im Mitarbeitergesprächsbogen steht?</i>	0	0	0	0	0
<i>F18 In welchem Ausmass werden die Mitarbeitergespräche Ihrer Meinung nach mit allen Mitarbeitern in der gleichen Art geführt?</i>	0	0	0	0	0
<i>F19 In welchem Ausmass erfolgt das Mitarbeitergespräch ohne Vorurteile?</i>	0	0	0	0	0
<i>F20 In welchem Ausmass basiert das Mitarbeitergespräch auf sorgfältig erhobenen Informationen?</i>	0	0	0	0	0

Die folgenden Fragen beziehen sich darauf, wie Sie das Resultat Ihres letzten Mitarbeitergesprächs – **Ihre Bewertung in Ihrem Mitarbeitergesprächsbogen** – einschätzen:

	In sehr hohem Ausmass	In ziemlich hohem Ausmass	In mittlerem Ausmass	In geringem Ausmass	Über- haupt nicht
<i>F21 In welchem Ausmass entspricht Ihre Bewertung Ihrer Anstrengung (Einsatz) am Arbeitsplatz?</i>	0	0	0	0	0
<i>F22 In welchem Ausmass entspricht Ihre Bewertung Ihren gesammelten Erfahrungen?</i>	0	0	0	0	0
<i>F23 In welchem Ausmass entspricht Ihre Bewertung Ihrer Leistung (Ergebnis) am Arbeitsplatz?</i>	0	0	0	0	0

Die folgenden Fragen beziehen sich auf Ihre Vorgesetzte/Ihren Vorgesetzten, welche/r mit Ihnen **das letzte Mitarbeitergespräch** durchgeführt hat. Wir verwenden die männliche Personenbezeichnung, um die Leserlichkeit des Fragebogens zu erhöhen.

	In sehr hohem Ausmass	In ziemlich hohem Ausmass	In mittlerem Ausmass	In geringem Ausmass	Über- haupt nicht
<i>F24 In welchem Ausmass hat er Sie höflich behandelt?</i>	0	0	0	0	0
<i>F25 In welchem Ausmass hat er Ihnen gezeigt, dass er Sie schätzt?</i>	0	0	0	0	0
<i>F26 In welchem Ausmass hat er Sie rücksichtsvoll behandelt?</i>	0	0	0	0	0
<i>F27 In welchem Ausmass hat er Ihnen die Bewertung gut erklärt?</i>	0	0	0	0	0
<i>F28 In welchem Ausmass hat er rasch auf Ihre Fragen reagiert?</i>	0	0	0	0	0
<i>F29 In welchem Ausmass ist er im Gespräch auf Ihre persönlichen Wünsche eingegangen?</i>	0	0	0	0	0
<i>F30 In welchem Ausmass hat er klare Ziele vereinbart?</i>	0	0	0	0	0
<i>F31 In welchem Ausmass kontrolliert er, ob die Ziele erreicht wurden?</i>	0	0	0	0	0
<i>F32 Wenn Sie Ziele nicht erreicht haben, in welchem Ausmass müssen Sie das erklären?</i>	0	0	0	0	0
<i>F33 In welchem Ausmass ist Ihre Belohnung abhängig davon, ob Sie die Ziele erreicht haben?</i>	0	0	0	0	0

Fragen zu Inhalt und Art Ihrer Tätigkeit bei Roche

Die folgenden Fragen beziehen sich auf **Ihre Stelle** bei Roche:

	Trifft voll und ganz zu	Trifft eher zu	Weder noch	Trifft eher nicht zu	Trifft überhaupt nicht zu
<i>F34 Meine Arbeit verlangt von mir, dass ich viele verschiedene Fähigkeiten einsetze.</i>	0	0	0	0	0
<i>F35 Am Arbeitsprozess, den ein Produkt in unserer Abteilung durchläuft, bin ich von A bis Z beteiligt.</i>	0	0	0	0	0
<i>F36 Meine Arbeit ist wichtig, weil sie das Wohl anderer Leute beeinflusst.</i>	0	0	0	0	0
<i>F37 Bei der Arbeit kann ich selbständig vorgehen.</i>	0	0	0	0	0
<i>F38 Ich weiss, ob meine Arbeitsleistung gut oder schlecht war.</i>	0	0	0	0	0
<i>F39 Ich fühle mich unterfordert.</i>	0	0	0	0	0
<i>F40 Ich befolge Regeln und Anweisungen besonders gründlich.</i>	0	0	0	0	0
<i>F41 Ich verlasse meinen Arbeitsplatz so, wie ich ihn angetroffen habe.</i>	0	0	0	0	0
<i>F42 Ich bin bei der Arbeit überdurchschnittlich aufmerksam.</i>	0	0	0	0	0

Jetzt geht es darum, **weshalb** Sie an Ihrer Stelle Folgendes tun (d.h. es geht um Ihre Gründe bzw. Motive):

<i>Ich befolge Regeln und Anweisungen besonders gründlich, weil...</i>	Trifft voll und ganz zu	Trifft eher zu	Weder noch	Trifft eher nicht zu	Trifft überhaupt nicht zu
<i>F43 weil ich dies gerne tue.</i>	0	0	0	0	0
<i>F44 weil ich dies für wichtig halte.</i>	0	0	0	0	0
<i>F45 weil ich mir sonst Vorwürfe machen würde.</i>	0	0	0	0	0
• <i>F46 weil ich sonst Probleme kriege.</i>	0	0	0	0	0
• <i>F47 weil es mir wichtig ist, meine Chancen auf eine Beförderung zu behalten.</i>	0	0	0	0	0

Ich verlasse meinen Arbeitsplatz so, wie ich ihn angetroffen habe, weil...

	Trifft voll und ganz zu	Trifft eher zu	Weder noch	Trifft eher nicht zu	Trifft überhaupt nicht zu
<i>F48 weil ich dies gerne tue.</i>	0	0	0	0	0
<i>F49 weil ich dies für wichtig halte.</i>	0	0	0	0	0
<i>F50 weil ich mir sonst Vorwürfe machen würde.</i>	0	0	0	0	0
• <i>F51 weil ich sonst Probleme kriege.</i>	0	0	0	0	0
• <i>F52 weil es mir wichtig ist, meine Chancen auf eine Beförderung zu behalten.</i>	0	0	0	0	0

Ich bin bei der Arbeit überdurchschnittlich aufmerksam, weil...

	Trifft voll und ganz zu	Trifft eher zu	Weder noch	Trifft eher nicht zu	Trifft überhaupt nicht zu
<i>F53 weil ich dies gerne tue.</i>	0	0	0	0	0
<i>F54 weil ich dies für wichtig halte.</i>	0	0	0	0	0
<i>F55 weil ich mir sonst Vorwürfe machen würde.</i>	0	0	0	0	0
• <i>F56 weil ich sonst Probleme kriege.</i>	0	0	0	0	0
• <i>F57 weil es mir wichtig ist, meine Chancen auf eine Beförderung zu behalten.</i>	0	0	0	0	0

Die folgenden Fragen beziehen sich auf **Ihre Arbeitsgruppe**:

	Trifft voll und ganz zu	Trifft eher zu	Weder noch	Trifft eher nicht zu	Trifft überhaupt nicht zu
<i>F58 Meine Arbeitsgruppe hat einen engen Zusammenhalt.</i>	0	0	0	0	0
<i>F59 Ich freue mich jeden Tag darauf, mit den Mitgliedern meiner Arbeitsgruppe zusammen zu sein.</i>	0	0	0	0	0
<i>F60 Ich habe das Gefühl, dass ich wirklich Teil meiner Arbeitsgruppe bin.</i>	0	0	0	0	0
<i>F61 Ich helfe Kollegen, die besonders viel zu tun haben.</i>	0	0	0	0	0
<i>F62 Ich höre zu, falls jemand in der Gruppe ein Problem hat.</i>	0	0	0	0	0
<i>F63 Ich gebe den Kollegen hilfreiche Ratschläge.</i>	0	0	0	0	0

Jetzt geht es darum, **weshalb** Sie Folgendes tun (d.h. es geht um ihre Gründe bzw. Motive):

<i>Ich helfe Kollegen, die besonders viel zu tun haben, weil...</i>	Trifft voll und ganz zu	Trifft eher zu	Weder noch	Trifft eher nicht zu	Trifft überhaupt nicht zu
<i>F64 weil ich dies gerne tue.</i>	0	0	0	0	0
<i>F65 weil ich dies für wichtig halte.</i>	0	0	0	0	0
<i>F66 weil ich vor anderen gut dastehen möchte.</i>	0	0	0	0	0
<i>F67 weil ich sonst Probleme kriege.</i>	0	0	0	0	0
<i>F68 weil es mir wichtig ist, meine Chancen auf eine Beförderung zu behalten.</i>	0	0	0	0	0

<i>Ich höre zu, falls jemand in der Gruppe ein Problem hat, weil...</i>	Trifft voll und ganz zu	Trifft eher zu	Weder noch	Trifft eher nicht zu	Trifft überhaupt nicht zu
<i>F69 weil ich dies gerne tue.</i>	0	0	0	0	0
<i>F70 weil ich dies für wichtig halte.</i>	0	0	0	0	0
<i>F71 weil ich vor anderen gut dastehen möchte.</i>	0	0	0	0	0
<i>F72 weil ich sonst Probleme kriege.</i>	0	0	0	0	0
<i>F73 weil es mir wichtig ist, meine Chancen auf eine Beförderung zu behalten.</i>	0	0	0	0	0

<i>Ich gebe den Kollegen hilfreiche Ratschläge, weil...</i>	Trifft voll und ganz zu	Trifft eher zu	Weder noch	Trifft eher nicht zu	Trifft überhaupt nicht zu
<i>F74 weil ich dies gerne tue.</i>	0	0	0	0	0
<i>F75 weil ich dies für wichtig halte.</i>	0	0	0	0	0
<i>F76 weil ich vor anderen gut dastehen möchte.</i>	0	0	0	0	0
<i>F77 weil ich sonst Probleme kriege.</i>	0	0	0	0	0
<i>F78 weil es mir wichtig ist, meine Chancen auf eine Beförderung zu behalten.</i>	0	0	0	0	0

Aussagen zu Ihren persönlichen Ansichten

Die folgenden Fragen beziehen sich darauf, wie **Sie sich selbst** einschätzen. Es geht hier nicht nur um Ihre Arbeit bei Roche, sondern auch um Ihr Verhalten in der Freizeit.

	Trifft voll und ganz zu	Trifft eher zu	Weder noch	Trifft eher nicht zu	Trifft überhaupt nicht zu
<i>F79 Ich mache Pläne und halte mich auch daran.</i>	0	0	0	0	0
<i>F80 Ich liebe Ordnung und Regelmässigkeit.</i>	0	0	0	0	0
<i>F81 Ich achte auf Details.</i>	0	0	0	0	0
<i>F82 Ich verschiebe Arbeiten oft auf später, damit ich etwas tun kann, was mir mehr Spass macht.</i>	0	0	0	0	0
<i>F83 Ich muss von einer Sache überzeugt sein, bevor ich mich voll dafür einsetze.</i>	0	0	0	0	0
<i>F84 Ich wähle möglichst die Aufgabe aus, die am meisten Spass verspricht.</i>	0	0	0	0	0
<i>F85 Die Hauptziele eines Unternehmens müssen mit meinen Prinzipien übereinstimmen, damit ich mich besonders anstrengende.</i>	0	0	0	0	0
<i>F86 Ich tue Dinge besonders gerne, die eine persönliche Herausforderung darstellen.</i>	0	0	0	0	0
<i>F87 Es ist mir wichtig für ein Unternehmen zu arbeiten, in dem ich meine Kompetenzen und Begabungen einsetzen kann.</i>	0	0	0	0	0
<i>F88 Bei der Wahl zwischen zwei Stellen nehme ich die, für die ich besser bezahlt werde.</i>	0	0	0	0	0
<i>F89 Ich strenge mich dann besonders für Projekte an, wenn ich dafür Anerkennung von anderen bekomme.</i>	0	0	0	0	0
<i>F90 Das Wichtigste an meiner Arbeit ist der Lohn.</i>	0	0	0	0	0
<i>F91 Bei der Stellenwahl entscheide ich mich für die Stelle, bei der andere meinen Erfolg besser sehen können.</i>	0	0	0	0	0

Die folgenden Fragen beziehen sich darauf, wie Sie **Ihre direkte Vorgesetzte/Ihren direkten Vorgesetzten** einschätzen:

	Trifft voll und ganz zu	Trifft eher zu	Weder noch	Trifft eher nicht zu	Trifft überhaupt nicht zu
<i>F92 Ihm ist wichtig, dass es mir gut geht.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F93 Er scheut keine Mühe, mir zu helfen.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F94 Er kümmert sich um Dinge, die für mich wichtig sind.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F95 Meine Bedürfnisse und Wünsche sind ihm wichtig.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F96 Er hat ein ausgeprägtes Gerechtigkeitsgefühl.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F97 Ich bin vollkommen überzeugt davon, dass er sein Wort hält.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F98 Ich bin einverstanden mit den Prinzipien, nach denen er handelt.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F99 Er informiert mich rechtzeitig über Dinge, die mich betreffen.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F100 Er erklärt mir alle Änderungen, die mich betreffen, so dass ich sie verstehe.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F101 Bei wichtigen Dingen, die mich betreffen, informiert er mich offen und ehrlich.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F102 Er zeigt mir seine Wertschätzung.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F103 Er ist ein Vorbild für mich.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F104 Er nimmt sich Zeit für meine Anliegen.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Bitte schätzen Sie, wie **häufig** Ihr direkter Vorgesetzter/Ihre direkte Vorgesetzte die folgenden Dinge macht:

	(fast) immer	häufig	manchmal	selten	(fast) nie
<i>F105 Läuft aufmerksam durch die Abteilung.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F106 Schaut mir beim Arbeiten zu.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F107 Schaut sich sorgfältig das Resultat meiner Arbeit an.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Die folgenden Fragen beziehen sich darauf, wie Sie *Ihre Arbeitsgruppe* einschätzen:

Denken Sie nun an die Kolleginnen und Kollegen, mit denen Sie *normalerweise* in einer Gruppe (z.B. in der Schicht) zusammenarbeiten. Wie schätzen Sie diese Kolleginnen und Kollegen ein?

	Trifft voll und ganz zu	Trifft eher zu	Weder noch	Trifft eher nicht zu	Trifft überhaupt nicht zu
<i>F108 Viele Kollegen helfen denen, die besonders viel zu tun haben.</i>	0	0	0	0	0
<i>F109 Viele Kollegen hören zu, wenn jemand aus der Gruppe ein Problem hat.</i>	0	0	0	0	0
<i>F110 Meine Kollegen sind offen für hilfreiche Kritik.</i>	0	0	0	0	0
<i>F111 Wenn jemand gute Arbeit macht, loben die Kollegen diese Arbeit.</i>	0	0	0	0	0
<i>F112 Viele Kollegen geben sich hilfreiche Ratschläge.</i>	0	0	0	0	0
<i>F113 Unter Kollegen geht es häufig darum, dem anderen den schwarzen Peter zuzuschieben.</i>	0	0	0	0	0
<i>F114 Viele Kollegen befolgen Regeln und Anweisungen besonders gründlich.</i>	0	0	0	0	0
<i>F115 Viele Kollegen verlassen den Arbeitsplatz so, wie sie ihn angetroffen haben.</i>	0	0	0	0	0
<i>F116 Viele Kollegen sind bei der Arbeit überdurchschnittlich aufmerksam.</i>	0	0	0	0	0
<i>F117 Meine Kollegen behandeln mich höflich.</i>	0	0	0	0	0
<i>F118 Meine Kollegen zeigen mir, dass sie mich schätzen.</i>	0	0	0	0	0
<i>F119 Meine Kollegen behandeln mich rücksichtsvoll.</i>	0	0	0	0	0
<i>F120 Ich habe das Gefühl, dass meine Kollegen mir gegenüber ehrlich sind.</i>	0	0	0	0	0
<i>F121 Wenn ich Probleme habe, bin ich sicher, dass mir meine Kollegen helfen.</i>	0	0	0	0	0

Die folgenden Fragen beziehen sich darauf, wie Sie **Ihren Arbeitgeber Roche** einschätzen:

	Trifft voll und ganz zu	Trifft eher zu	Weder noch	Trifft eher nicht zu	Trifft überhaupt nicht zu
<i>F122 Ich bin der Überzeugung, dass Roche ihre Versprechen hält.</i>	0	0	0	0	0
<i>F123 Ich glaube, Roche ist nicht immer ehrlich.</i>	0	0	0	0	0
<i>F124 Ich glaube, im Allgemeinen meint es Roche gut mit mir.</i>	0	0	0	0	0
<i>F125 Ich glaube, dass sich Roche mir gegenüber fair verhält.</i>	0	0	0	0	0
<i>F126 Roche verhält sich mir gegenüber offen und ehrlich.</i>	0	0	0	0	0
<i>F127 Roche zeigt mir, dass sie mich schätzt.</i>	0	0	0	0	0
<i>F128 Ich bin stolz darauf, bei Roche zu arbeiten.</i>	0	0	0	0	0
<i>F129 Ich würde jederzeit einem Freund empfehlen, bei Roche zu arbeiten.</i>	0	0	0	0	0
<i>F130 Ich stehe voll und ganz hinter Roche.</i>	0	0	0	0	0

Hier haben Sie die Möglichkeit, der Leitung QC/QA/Solida/Liquida/Rocephin Verbesserungsvorschläge zu unterbereiten:

1)

2)

3)

Persönliche Angaben

F131	weiblich	männlich
Geschlecht:	<input type="radio"/>	<input type="radio"/>

F132	Deutsch	Französisch	Italienisch	andere, welche:
Mutter- sprache:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	_____

F133	Liquida	Solida	QC/QA	Rocephin
Bereich	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

F134
Eintrittsjahr _____
bei Roche:

F135 Seit wann arbeiten Sie an ihrer jetzigen Stelle? _____

F136 Anstellung:	festangestellt	temporär, Roche-intern	temporär, extern
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

F137	Vollzeit (100%)	Teilzeit
Anstellungsgrad:	<input type="radio"/>	<input type="radio"/>

F138 Führen Sie selbst Mitarbeitergespräche mit Ihren Mitarbeitern durch?	ja	nein
	<input type="radio"/>	<input type="radio"/>

F139 Wurden Sie im Jahr 2003 befördert?	ja	nein
	<input type="radio"/>	<input type="radio"/>

F140	Im Betrieb angelernt	Lehre/Berufs- schule	HTL/FH/HWV	Universität	_____
Ausbildung:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Persönlicher Code

Bitte tragen Sie nun Ihren persönlichen Code ein. Stellen Sie diesen wie folgt zusammen:

1. der erste Buchstabe Ihres Vornamens
2. der letzte Buchstabe ihres Nachnamens
3. Ihr Geburtsjahr
4. der letzte Buchstabe Ihres Geburtsortes

Beispiel für Monika Meier: Persönlicher Code = **mr65h**

m für **Monika**, **r** für **Meier**, **65** für Monikas Geburtsjahr 19**65** und **h** für Monikas Geburtsort **Zürich**.

F141 Ihr
persönlicher Code: _____

Hinweise zum Fragebogen

Die folgenden Fragen beziehen sich auf den vorliegenden Fragebogen.

	Trifft voll und ganz zu	Trifft eher zu	Weder noch	Trifft eher nicht zu	Trifft überhaupt nicht zu
<i>F142 Ich habe die Fragen gut verstanden.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F143 Ich habe die Fragen gerne beantwortet.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F144 Es war für mich einfach, mich für eine Antwort zu entscheiden.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<i>F145 Ich fand es mühsam, dass ich den Fragebogen ausfüllen musste.</i>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Auf den folgenden Zeilen können Sie Hinweise und Rückmeldungen bezüglich des Fragebogens machen.

Sie sind nun am Ende des Fragebogens angelangt. Besten Dank für Ihre Mitarbeit!
Wir bitten Sie, den ausgefüllten Fragebogen im Couvert zu verschliessen und uns abzugeben.
Vielen Dank!

Item	Content	Origin	Remarks
1	Recognition of good work by Roche	From a previous study conducted by Roche	
2,3,5,6	Distributive fairness- generell evaluation	Robinson	
4,7	Procedural fairness – generell evaluation	Niehoff/Moorman (1993)	
8,9	Procedural fairness – promotion according to Thibaut /Walker	Colquitt (2001)	
10,11,12	Procedural fairness – promotion according to Leventhal	Colquitt (2001)	
13,14,15	Distributive fairness - promotion	Beugré/Baron (2001)	
16,17	Procedural fairness - appraisal interview according to Thibaut /Walker	Colquitt (2001)	
18,19,20	Procedural fairness - appraisal interview according to Leventhal	Colquitt (2001)	
21,22,23	Distributive fairness - appraisal interview	Beugré/Baron (2001)	
24,25,26	Interpersonal fairness appraisal interview	Bies zit in Colquitt (2001)	
27,28,29	Informational fairness appraisal interview	Colquitt (2001)	
30,31,32,33	Goals, goal attainment	Jaworski/ MacInnis (1989)	
34	Skill variety	Hackman/Oldham (1980) Schmidt/Kleinbeck (1999)	
35	Task identity	Hackman/Oldham (1980) Schmidt/Kleinbeck (1999)	
36	Task significance	Hackman/Oldham (1980) Schmidt/Kleinbeck (1999)	
37	Autonomy	Hackman/Oldham (1980) Schmidt/Kleinbeck (1999)	
38	Feedback from work	Hackman/Oldham (1980) Schmidt/Kleinbeck (1999)	
39	Underchallenging work	Mr. Gröger from Rocephin	
40,41,42	Compliance/conscientiousness	According to Konovsky/Organ (1996)	
43-57	Motivation continuum	Ryan/Connell (1989)	

	according to Deci & Ryan		
58,59,60	Group Cohesiveness	Kidwell R.E. et al. (1997)	
61,62,63	Helping Behaviour	Bierhoff et al. (2000)	
64-78	Motivation continuum according to Deci & Ryan	Ryan/Connell (1989)	
79-81	Conscientiousness as a trait	International Personality Item Pool (2001)	
82,84	Internal Process Motivation	Barbuto/Scholl (1998)	
83,85	Internal Self Concept Motivation	Barbuto/Scholl (1998)	
86,87	Goal Internalization Motivation	Barbuto/Scholl (1998)	
88,90	Instrumental Motivation	Barbuto/Scholl (1998)	
89,91	External Self Concept Motivation	Barbuto/Scholl (1998)	
92,93,94,95	Trust in supervisor, evaluation benevolence	Mayer/Davis (1999)	
96,97,98	Trust in supervisor, evaluation integrity	Mayer/Davis (1999)	
99,100,101,102, 104	Interpersonal and informational fairness general evaluation	According to Colquitt (2001)	
103	Supervisor acting as role model	Mr.. Gröger from Rocephin	
105,106,107	Control by supervisor	Niehoff/ Moorman (1993)	
108,109,112,113	Prosocial behaviour	Bierhoff et al. (2000)	
110,111	Trust in colleagues	Bijlsma-Frankema (2002)	
114,115,116	Compliance/ conscientiousness	According to Konovsky/Organ (1996)	
117,118,119	Interactive fairness of colleagues	Eigenes Konstrukt in Anlehnung an Colquitt (2001)	
120,121	Trust in colleagues	Travaglione/Ferres/Muno (2001)	
122,123,124,125,126	Trust in employer (Roche)	Robinson (1996)	
127	Respect	Tyler/Blader (2000)	
128	Pure Pride	Tyler/Blader (2000)	
129	Pride- identification	Tyler/Blader (2000)	
130	Pride- internalization	Tyler/Blader (2000)	
131-140	Demographic data	Own development	
141	Personal code	Own development	
142-145	<i>Evaluation of the questionnaire</i>	<i>Own development</i>	

About the author

Daniel Bastian

- was born in Basel
- attended primary school and state college in Hochdorf and Luzern (degree: Matura, i.e. general qualification for university entrance)
- studied at the Faculty of Economics, Business Administration and Information Technology of the University of Zurich (Major: business administration, Minors: economics and social psychology/ Degree: Master of Arts in Business Administration)
- did doctoral studies in economics at the Faculty of Economics, Business Administration and Information Technology of the University of Zurich
- completed postgraduate studies in applied statistics at the Federal Institute of Technology in Zurich (Degree: Diploma of Advanced Studies in Applied statistics, ETH Zurich)
- worked as research assistant and lecturer at the chair of Prof. Dr. Dr. h.c. Margit Osterloh
- worked as lecturer, senior researcher and project manager for diverse academic institutions, most prominently for the Kalaidos Group (a private university), the University of Applied Science, Zurich and the ZfU – International Business School